

Provaris Energy Ltd (ASX: PV1, Provaris, the Company) is pleased to provide the following summary of the Company's development activities for the quarter that ended 31 December 2023.

KEY HIGHLIGHTS

H2NEO CARRIER DEVELOPMENT & PROTOTYPE TANK

- Completed design milestone for the compressed hydrogen prototype tank; construction in Norway on schedule to start in Q1 CY2024.
- Expanded tank intellectual property (IP) to include new small-scale hydrogen storage tanks for onshore and maritime solutions (1 to 10 tonne capacity), opening a fresh commercial avenue with early revenue opportunities in 2024.
- Engaged DNV to issue a Front-End Engineering Design Statement for Provaris' proprietary H2Neo carrier design and gain approval for the prototype tank.

EUROPEAN DEVELOPMENTS

- Signed a non-binding Memorandum of Understanding with Uniper Global Commodities SE to assess the supply of green hydrogen to Germany using Provaris' compressed hydrogen H2Neo carriers.
- Secured a second non-binding Memorandum of Understanding with a major German energy utility to jointly evaluate Provaris' complete compressed hydrogen delivery chain.
- Growing interest from German utilities, end-users, port owners, and pipeline operators seeking low-cost green hydrogen imports before 2030.
- Independent research studies in Germany on hydrogen supply chain costs support Provaris' 2023 Hydrogen Transport Comparison Report, affirming compression as the most cost-effective marine transportation option over regional distances.
- Ongoing techno-economic qualification with major European utilities, ports, and pipeline companies to incorporate compression as a carrier for gaseous green hydrogen import.
- Ongoing development in two collaboration projects in Norway for exporting green hydrogen using Provaris' compressed hydrogen storage barge and carriers. Exploring regional opportunities beyond Norway for a compressed hydrogen supply chain.
- Collaboration Agreement with Norwegian Hydrogen extended to continue the Fjord H2 project and jointly evaluate other potential green hydrogen production and export sites in Norway and the Nordic region.

CORPORATE

- Raised \$1.9 million in November 2023 through a well-subscribed placement to existing and new institutional and sophisticated investors.
- Allocated funds for Provaris' proprietary hydrogen prototype tank construction and testing program in Norway, as well as ongoing project development costs.
- Appointed Garry Triglavcanin as Product Development Director in November, focusing on the continuous development and optimization of our compressed hydrogen supply chain, which is gaining increased attention as a marine transport alternative in Europe.

Provaris Managing Director and CEO, Martin Carolan, commented: "Our momentum across Germany and Norway surged in the quarter, reflecting the vibrant progress we're making. The signing of two MoUs with reputable German utilities not only underscores the growing acknowledgment of compression in the region but also positions it as a trusted and viable alternative for hydrogen supply and import.

As Europe accelerates toward its 2030 renewables targets, there's a notable realisation among governments and major companies about the limitations of existing supply alternatives and the scarcity of gaseous hydrogen being developed for import. Provaris, with its innovative approach, stands at the forefront, ready to seize the opportunity presented by the pressing timeline to meet decarbonization targets and fulfill commitments made by both industry and government for widespread adoption.

The upcoming near-term milestones, including prototype testing and final class approvals for our H2Neo carrier, will not only enhance our credibility but also validate our business model, reinforcing our position as a key player in the dynamic and evolving landscape of hydrogen solutions."

H2NEO COMPRESSED HYDROGEN CARRIER DEVELOPMENT

Prototype Tank Progress

In the December quarter, we achieved a crucial milestone by finalizing the design for a groundbreaking multi-layered carbon steel prototype tank, the first of its scale. Production design activities included the development of a digital twin and the procurement of carbon-steel material for outer layers and stainless steel for the liner. Construction, scheduled for Q1 CY2024 at the Prodtex facility in Fiskå, Norway, remains on track.

DNV Engagement and Approval

The first quarter of CY2024 commenced with a strong start as DNV was engaged to issue a Front-End Engineering Design Statement (FEED Statement) for our proprietary H2Neo carrier design, along with approval for the prototype tank.

Successful prototype tank testing will secure final Class Approval for Provaris’ H2Neo compressed hydrogen carrier and position Provaris to enter ship building agreements.

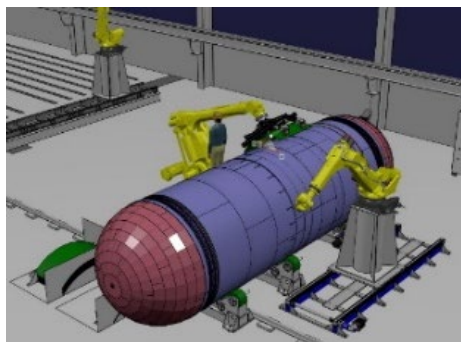
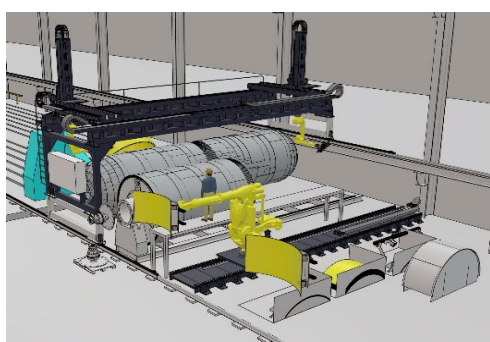
Collaborative Expertise

Throughout the engagement, DNV will leverage its extensive experience in maritime gas shipping and storage, along with intimate knowledge of Prodtex’s manufacturing processes. ABS and DNV will jointly oversee construction and participate in prototype tank testing, conducted by SINTEF, a recognized Norwegian research facility. The testing includes a rigorous low-cycle fatigue program of ~30,000 cycles and over pressurization.

Near Term Milestones

Construction of the prototype tank to commence in Q1 CY 2024, with testing and approvals projected to conclude in Q2 CY2024, propelling us closer to establishing a robust platform for regional hydrogen supply chains. Additionally, successful milestones can unlock new revenue opportunities, including the production and sale of small-scale tanks by late CY2024.

Figure 1: Illustration of the Robotic Production Cell & Compressed Hydrogen Prototype Tank



Specifications:

- Diameter: 2.5 meters
- Length: 9 meters
- Capacity: ~650 kg hydrogen at 250 barg
- Weight: ~35 tonnes.

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Extension of tank IP for alternative industrial solutions targeting commercialisation in 2024

Provaris extends its tank intellectual property (IP) to address a market gap for cost-effective static storage solutions in industrial applications requiring long-duration storage of over 1 tonne of renewable hydrogen. Through scaling up the prototype tank specifications, Provaris has developed versatile tank designs with capacities of 1, 5, and 10 tonnes of gaseous hydrogen, using layered carbon-steel with a design pressure of 250 barg.

While not designed for the mobility market, these tanks will find applications in marine bunkering, refuelling stations, and industrial buffer storage, offering an alternative to current containerized composite solutions.

Early commercialization in late 2024 aims to showcase scale-up, constructability, reliability, and safety, presenting revenue opportunities.

AFIR legislation passed by the EU in Sept. 2023, stipulates minimum 1-tonne H2 storage capacity for 657 HRS sites to be deployed across 27 member states by 2027. Meaning deployment must start in 2025.

EUROPEAN DEVELOPMENTS

MOUs signed with German Energy Utilities

Provaris ended the quarter with the signing of a non-binding MOU with Uniper Global Commodities SE, a major player with 22.5 GW generation capacity in Europe. This milestone event recognizes Provaris' compressed hydrogen carriers as a potential solution for green hydrogen import, aiding in decarbonizing industrial applications. Uniper is evaluating the benefits of Provaris' H2Neo carriers and supply chain across the entire hydrogen value chain.

Second non-binding MoU with a major German energy utility for joint evaluation of Provaris' complete hydrogen delivery chain and aligns with the German utilities' portfolio strategy for green hydrogen supply and requirement for imported volumes of gaseous hydrogen by 2028 when the decommissioning of GW-scale coal-fired generation is implemented.

Scarcity of viable alternatives to supply gaseous hydrogen

Provaris continues to be engaged in detailed workshops in Germany with stakeholders across the supply chain. Focused on technical and commercial assessments and considering the delivered cost of hydrogen and integration of H2Neo carriers in downstream infrastructure. Scarcity of viable alternatives to supply gaseous hydrogen required for industry is increasing the focus on compression.

Positioned for Hydrogen offtake tenders in 2024

Thyssenkrupp Steel's recent tender in early 2024 for clean hydrogen supply of 150,000 tonnes per annum for 10yr starting in 2028 underscores market opportunities. Provaris is well-positioned for upcoming tenders for gaseous hydrogen supply in 2024 given:

- Existing MOUs and compression technology advantages enhance Provaris' competitiveness.
- Momentum with end-users, port owners, and pipeline operators aligns with REPowerEU ambitions for importing 10Mtpa of green hydrogen by 2030.
- EU legislation, including Renewable Energy Directive (RED III), underscores requirement for green hydrogen.
- Completion of all approvals for the H2Neo carrier in 1H CY 2024 increases Provaris' strategic position in the evolving hydrogen landscape.

Independent Report Supports Compression as Most Competitive Cost for Regional Supply Source to EU

In early 2024 an independent report produced by ClimateXChange and ARUP for the Scottish Government, assessed the hydrogen production pathways to Europe by either pipeline, shipping ammonia or shipping compressed hydrogen, and comparison with costs for other regions of supply.

Notably the conclusions are consistent with our 2023 Hydrogen Transport Comparison report release in May 2023 and reinforces the robustness of our earlier analysis, underscores the viability of our insights in the evolving landscape of hydrogen transport and supported by the focus from German utilities on our supply chain.

Full report available [here](#).

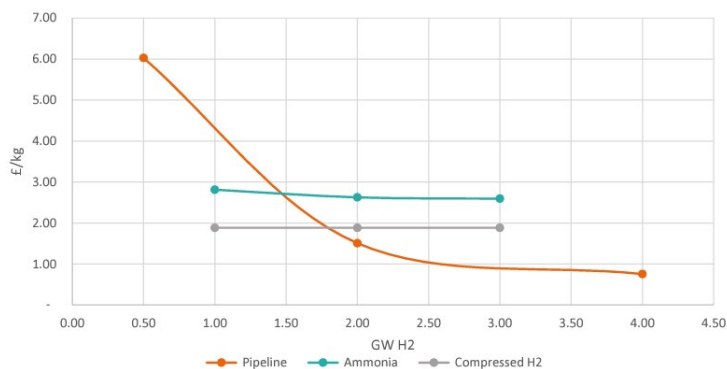


Figure 24 – Calculated LCOH pathway comparison by production scale

NORWAY COLLABORATION PROJECTS

Collaboration with Norwegian Hydrogen (FjordH2 Project):

The quarter continued to progress our collaboration with Norwegian Hydrogen on the FjordH2 project, with completion of pre-feasibility design and engineering work. This included consultations with capital equipment suppliers, ensuring a robust economic model for hydrogen production, compression, and maritime export infrastructure.

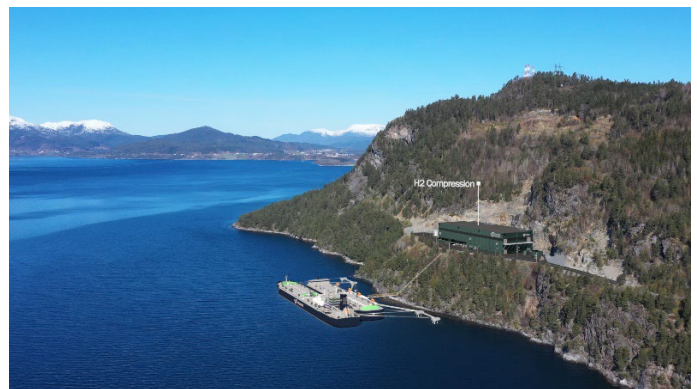
Specialist surveys, such as a bathymetric survey at the export site, and a successful Quantitative Risk Assessment (QRA) according to The Norwegian Directorate for Civil Protection's criteria, yielded positive results. Notably, the QRA report identified no unexpected risks or exclusion zones, affirming the project's sound design.

All planned project activities for 2023 were successfully executed, maturing the FjordH2 project toward FEED-level engineering and permitting as a bulk-scale hydrogen export site. Feasibility outcomes confirmed the capital and energy efficiency advantages of a compressed hydrogen supply chain, showcasing a highly competitive cost for delivering gaseous hydrogen from Norway to Europe.

Provaris and Norwegian Hydrogen have extended the Collaboration Agreement for an additional 6 months to June 2024. This extension not only underscores the success of the collaboration but also reflects our joint commitment to advancing the FjordH2 project and use this work as a benchmark to explore for other green hydrogen production and export opportunities in the Nordic region.

Post-quarter, Norwegian Hydrogen's 250 MW application remains assessed as mature, but it's in the capacity queue of Statnett (national TSO). Future development activities for the FjordH2 project will align with the confirmed power capacity reservation. While the original late-2027 export target timeline may shift based on Statnett projections, the continued progress and flexibility in the collaboration position us well for the evolving timeline of this transformative project.

Illustration of hydrogen production facility at Ørskog in Ålesund municipality and compression facility and terminal including H2Leo storage & H2Neo carrier with direct access to sea



Collaboration with Gen2 Energy AS (Afjord Project)

The past quarter has been instrumental in advancing collaboration activity for the Afjord Project, focusing on achieving Gate 2 and 3 milestones which include the development an integrated schedule for the project, completion of a comprehensive technical and safety review of the H2Neo carrier and containment tank, and carried out thorough assessments during site visits and meetings with Prodtex to review the prototype tank program and production facility. Additionally, a preliminary review of all safety risks and hazards for the project site has been completed.

Building on the successful Gate 1 completion in 3Q CY2023 and ongoing economic modeling, we continue to underscore the compelling economics offered by Provaris' unique supply chain solution for Norwegian export sites, surpassing alternative carriers.

A final study report is well on track for completion in Q1 CY2024. The positive momentum and successful milestones achieved so far positions a bulk-scale export solution using Provaris' H2Neo carriers for the next stage of development to be assessed in the 1H of 2024.

Åfjord project in Trøndelag region, Norway



TIWI H2 PROJECT, NORTHERN TERRITORY

During the quarter, Management met with the Tiwi Plantation Corporation (TPC) Board and discussed access rights to the plantation land for solar monitoring, engineering studies, and future construction and operation of solar panels. We have also taken proactive steps by presenting a draft agreement to TPC, reflecting our commitment to collaborative development.

Provaris also continued its dialogue with the Tiwi Land Council (TLC) regarding a formal response to draft Project Agreements submitted in Q2 CY2023, which include a commercial agreement for land use and a benefits package to the Munupi Clan and Tiwi Island people. Pending the outcome of the TLC February 2024 elections, Provaris will again request community engagement on its proposal.

While minimal expenditure was allocated in Q1 CY2024, we remain steadfast in our commitment to the Tiwi H2 project. Any future substantial expenditure hinges on reaching agreements with TLC and TPC, underscoring our strategic and measured approach.

Looking ahead, the Board intends to review progress in the June quarter CY2024, especially in collaboration with TLC and TPC post the community elections. This assessment will guide our determination of the level of focus and commitment the Company will allocate to the Tiwi H2 Project for the remainder of CY2024. Despite current developments, we maintain a positive outlook and are dedicated to navigating the path forward in a manner that aligns with the best interests of all stakeholders involved.

CORPORATE

Equity Capital Raise

In late November 2023, a successful equity capital raise generated \$1.9 million through a placement to institutional, sophisticated, and professional investors. This injection of funds positions us strategically for key initiatives, primarily the construction and testing of the prototype tank in Norway, aiming to secure Final Class Approvals for our proprietary H2Neo hydrogen carrier. Additionally, the funds will support development activities on ongoing hydrogen collaboration projects in Norway and cover essential corporate costs.

A noteworthy display of confidence came from our Directors, who committed \$230,000, pending shareholder approval at a General Meeting scheduled for Tuesday, 27 February 2024. This commitment underscores their belief in the Company's vision and strategic direction.

Board Change and Appointment of Product Development Director

In a positive organizational development, Garry Triglavcanin, a founding shareholder and director, transitioned into a new executive leadership role as the Company's Product Development Officer. This shift enhances our focus on development pathways in 2024, emphasizing our commitment to innovation and growth.

AGM Meeting

Our Annual General Meeting on 30 November 2023 witnessed the successful passing of all resolutions, reflecting the strong support from our shareholders.

Cash balance on 31 December 2023 was \$2.5 million.

During the quarter, our cash expenditure remained within budget, with a focus on advancing the prototype tank program and final class approvals in Norway. Our commitment to research and development in the compressed hydrogen supply chain, completion of CFER material and weld testing in Canada, and project development costs associated with Norwegian collaborations for hydrogen supply, exemplifies our strategic allocation of resources.

The aggregate amount for payments to related parties and their associates during the quarter was \$243,000, covering fees, salaries, and superannuation for Directors, including Executive Directors. This disclosure reflects our commitment to accountability and responsible financial management.

As we move forward, the Company is well-positioned for the next phase of growth and development, thanks to the support of our investors, the dedication of our Directors, and our strategic financial management.

- END -

This ASX announcement has been authorised by the Board of Provaris Energy Ltd.

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About Provaris Energy

Provaris Energy Ltd (ASX: PV1) | www.provaris.energy

Provaris Energy (ASX: PV1) is an Australian public company developing a portfolio of integrated green hydrogen projects for the regional trade of Asia and Europe, leveraging our innovative compressed hydrogen bulk storage and carrier. Our focus on value creation through innovative development that aligns with our business model of simple and efficiency hydrogen production and transport can establish an early-mover advantage for regional maritime trade of hydrogen and unlock a world of potential. In August 2022 Provaris Norway AS was established to advance the development of hydrogen export projects from Norway and other European locations.

Disclaimer: This announcement may contain forward looking statements concerning projected costs, approval timelines, construction timelines, earnings, revenue, growth, outlook or other matters ("Projections"). You should not place undue reliance on any Projections, which are based only on current expectations and the information available to Provaris. The expectations reflected in such Projections are currently considered by Provaris to be reasonable, but they may be affected by a range of variables that could cause actual results or trends to differ materially, including but not limited to: price and currency fluctuations, the ability to obtain reliable hydrogen supply, the ability to locate markets for hydrogen, fluctuations in energy and hydrogen prices, project site latent conditions, approvals and cost estimates, development progress, operating results, legislative, fiscal and regulatory developments, and economic and financial markets conditions, including availability of financing. Provaris undertakes no obligation to update any Projections for events or circumstances that occur subsequent to the date of this announcement or to keep current any of the information provided, except to the extent required by law. You should consult your own advisors as to legal, tax, financial and related matters and conduct your own investigations, enquiries and analysis concerning any transaction or investment or other decision in relation to Provaris. \$ refers to Australian Dollars unless otherwise indicated.

Appendix 4C

Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity

Provaris Energy Ltd

ABN

53 109 213 470

Quarter ended ("current quarter")

31 December 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) research and development	-	-
(b) product manufacturing and operating costs	-	-
(c) advertising and marketing	(81)	(173)
(d) leased assets	-	-
(e) staff costs	(626)	(1,305)
(f) administration and corporate costs	(373)	(665)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	14	49
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.81 Other (R&D Rebate Income)	-	-
1.82 Other (Project & IP development)	(947)	(2,155)
1.9 Net cash from / (used in) operating activities	(2,013)	(4,249)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	-	-
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
2.2 Proceeds from disposal of:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	-	-
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
2.6 Net cash from / (used in) investing activities	-	-

3. Cash flows from financing activities		
3.1 Proceeds from issues of equity securities (excluding convertible debt securities)	1,648	1,648
3.2 Proceeds from issue of convertible debt securities	-	-
3.3 Proceeds from exercise of options	-	-
3.4 Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
3.10 Net cash from / (used in) financing activities	-	-

4. Net increase / (decrease) in cash and cash equivalents for the period		
4.1 Cash and cash equivalents at beginning of period	2,847	5,070
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(2,013)	(4,249)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4 Net cash from / (used in) financing activities (item 3.10 above)	1,648	1,648
4.5 Effect of movement in exchange rates on cash held	6	19
Cash and cash equivalents at end of period	2,488	2,488

Appendix 4C
Quarterly cash flow report for entities subject to Listing Rule 4.7B

5. Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	2,488	1,847
5.2 Call deposits	-	1,000
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,488	2,847

6. Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1 Aggregate amount of payments to related parties and their associates included in item 1	243
6.2 Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments

Item 6.1 includes fees, salaries and superannuation paid to directors, relating to varying periods.

7. Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 Total financing facilities	-	-

7.5 **Unused financing facilities available at quarter end** -

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

N/a

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(2,013)
8.2 Cash and cash equivalents at quarter end (item 4.6)	2,488
8.3 Unused finance facilities available at quarter end (item 7.5)	-
8.4 Total available funding (item 8.2 + item 8.3)	2,488
8.5 Estimated quarters of funding available (item 8.4 divided by item 8.1)	1
<p><i>Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.</i></p>	
8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:	
8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
<p>Answer: Yes.</p>	
8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
<p>Answer: The Company continues to progress alternative funding and capital raising options either at the subsidiary level or parent Company level, including non-dilutive sources of funds available from innovation and R&D soft funding schemes in Europe and Norway. The Company remains confident of completing further funding/capital raising required (based on all previous successful capital raisings). The company has capacity to defer or cancel discretionary project and R&D expenditure if required.</p>	
8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
<p>Answer: Yes. The Company remains confident in its ability to raise further funding/capital and manage its cash position and outflows, without negatively impacting on its current business and operating objectives.</p>	
<p><i>Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.</i></p>	

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 January 2024

Authorised by: Martin Carolan
(Name of body or officer authorising release - see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee - eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.