

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 30 June 2023**.

HIGHLIGHTS

NORWAY

- Successful completion of Provaris' first Prefeasibility Study for a green hydrogen export site in Norway with local partner Norwegian Hydrogen AS. The study confirmed positive economics showcasing the potential to export volumes of up to 50,000 tpa to Europe, using Provaris' efficient compressed hydrogen supply chain.
- Entered into a Collaboration Agreement with Norwegian Hydrogen AS to jointly develop the **FjordH2** project located in the Alesund Municipality, West Coast Norway. Project scale of 270 MW electrolyser capacity to export ~40,000 tpa to Europe, ranks the project as one of the largest in the Nordics. Pre-FEED activities, securing permits, negotiating power purchase agreements (PPA), and ensuring reliable offtake arrangements have commenced.
- Forging ahead with scaling sustainable projects, Provaris signed a second Collaboration Agreement, this time with Gen2 Energy AS. The agreement aims to conduct a comprehensive Prefeasibility Study for a large-scale compressed hydrogen supply chain to Europe. The study will focus on the **Åfjord** project located in the Trøndelag region of Norway. Provaris' compressed hydrogen supply chain will be integral to the project's viability and success.

TIWI H2 (AUSTRALIA)

- Successfully completed the Design Feasibility Report advancing the solar farm and transmission system to a 30% level of concept design, revising the export volume to 90,000 tpa.
- Northern Territory Environment Protection Authority (NTEPA) finalised the EIS Terms of Reference on 26 April 2023. Currently the preparation of the EIS is ongoing, with submission now planned for early 2024. This comprehensive EIS will cover both the Northern Territory and Federal Government EPBC approval processes.
- Submitted draft project and land agreements to Tiwi Land Council, along with a proposed community benefits package. Collaboration with the Tiwi Land Council is underway to ensure a mutually beneficial partnership.

H2NEO CARRIER DEVELOPMENT

- Ongoing Phase 3 qualification of the selected cargo tank materials and welding procedures with CFER Technologies, Edmonton, Canada. The completion and final results are anticipated in the September quarter of this year.
- Recently awarded a contract to Norwegian based Prodtex AS (Prodtex) for the design, construction and testing of a prototype scale tank in collaboration with SINTEF, Norway's leading independent research organization.
- In July, Provaris and Prodtex entered into a Technology Collaboration Agreement to jointly develop a state-of-the-art fully automated production and fabrication facility in Norway, for the construction of compressed hydrogen tanks.
- In July, appointment of American Bureau of Shipping (ABS) and Det Norske Veritas (DNV) to oversee the certification of prototype tank testing and final Class Approvals for Provaris' H2Neo carrier in Q1 2024.

CORPORATE

- Completed and launched a new Hydrogen Supply Chain study highlighting the overwhelming benefits of compressed hydrogen marine transport.

Provaris Managing Director and CEO, Martin Carolan, commented: "The June quarter has delivered significant milestones from our strategy and investment in Provaris Norway AS, located in Oslo, with the establishment of two project collaboration agreements to develop simple and efficient export hydrogen projects in Norway. With close proximity to the major ports of Germany and Netherlands, compressed hydrogen projects can deliver low-cost, pipeline ready, green hydrogen to meet REPowerEU's requirement for 10Mtpa of imports by 2030.

The establishment of a world-class technical collaboration to deliver final class approvals for the H2Neo carriers is a game-changer for Provaris to achieve Class Approvals and materially reduce the cost of tank construction for the H2Neo and H2Leo carriers and position the Company for a substantial market opportunity for onshore static storage tanks.

The scale and opportunity for Provaris in Europe is being realized given its unique approach to the production, storage and delivery of hydrogen that aligns with EU policy and funding to deliver energy security and the energy transition."

LAUNCH OF 270 MW GREEN HYDROGEN PLANT WITH NORWEGIAN HYDROGEN – FJORDH2

In May, Provaris announced the successful completion of the Prefeasibility Study conducted in collaboration with Norwegian Hydrogen AS (the Partners). The study identified a cost-effective project for exporting green hydrogen from Norway to Europe, utilising Provaris' innovative compressed hydrogen floating storage and carriers.

In June, Provaris further solidified its commitment to green hydrogen by entering into a Collaboration Agreement with Norwegian Hydrogen AS to establish a large-scale green hydrogen production plant at Ørskog in Ålesund municipality, Norway, known as the Fjord H2 project.

Key features of the FjordH2 project include:

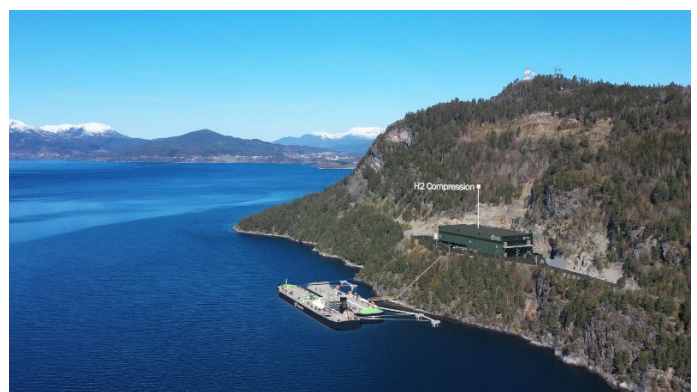
- A robust hydrogen plant with a capacity of 270 MW upon full development.
- A production capacity of 40,000 tpa of green hydrogen.
- An electricity capacity reservation of 20MW has already been secured and an application for an additional 250MW capacity has already been submitted and is currently in progress.

For the transportation of the compressed hydrogen to Europe the Fjord H2 project will utilise Provaris' H2Leo storage and H2Neo carriers enabling competitive delivered costs of hydrogen within the range of EUR 1.00-1.50/kg (excluding H2 production costs).

Provaris' compressed hydrogen export supply chain stands out for its simplicity and energy efficiency. This flexible and low-cost solution aligns perfectly with the collaboration's ambition of scaling up to gigawatt generation capacity for transportation as gaseous green hydrogen for Europe. Additionally, the operating flexibility of compression allows the project to take advantage of variable power prices, with the understanding that continuous 24/7 utilisation might strain the local grid and does not always result in a lower cost of hydrogen.

As the Fjord H2 project Partners progress with development activities, the focus for 2023 moves to permitting, and establishing key agreements to facilitate a detailed feasibility study. In 2024, FEED studies are scheduled, with the first targeted exports expected to commence in 2027. This ambitious timeline reflects the Partners commitment to making green hydrogen a reality on a large scale, contributing to Europe's REPowerEU policy ambitions.

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



To view a short animation of the FjordH2 project please [click the image below](#).



GEN2 ENERGY AND PROVARIS JOIN FORCES TO DEVELOP A LARGE-SCALE EUROPEAN HYDROGEN SUPPLY CHAIN.

In June, Gen2 Energy AS and Provaris Energy Ltd signed a Collaboration Agreement. The Collaboration is to conduct a comprehensive prefeasibility study to assess the technical and economic feasibility of producing and supplying compressed green hydrogen from a hydrogen production project in Åfjord to key European ports, leveraging Provaris' advanced marine storage and shipping solution (Åfjord H2 project).

Both companies recognise the immense potential of the Åfjord H2 project, benefitting from access to cost effective renewable energy sources and well-established industrial infrastructure. This location is considered ideal for large scale production of green hydrogen and efficient seaborne supply of hydrogen to major European ports.

Gen2Energy and Provaris share a strong commitment to green hydrogen production and export projects using compression as the delivery vector. Gen2 Energy's focus lies in domestic supply and export to European markets, while Provaris specializes in providing innovative integrated bulk-scale storage and marine transportation solutions for green hydrogen.

The upcoming prefeasibility study will encompass various essential aspects, including hydrogen production and compression processes, the design of export and import terminals for efficient loading and unloading of Provaris' GH2 Carriers (including storage facilities), optimisation of the GH2 Carrier fleet, identification of potential offtake parties, and the development of economic models and schedules for the Åfjord H2 project. Through this joint effort Gen2 Energy and Provaris aim to further accelerate the adoption and utilisation of sustainable green hydrogen in Europe's energy landscape.

Åfjord project in Trøndelag region, Norway



TIWI H2, TIWI ISLANDS, NORTHERN TERRITORY

Provaris acknowledges that its proposed Tiwi H2 Project is located on the traditional lands of the Munupi people. It is a privilege to have the support and such a close working relationship with the Munupi Clan and other key stakeholders.

Provaris has made significant progress in advancing the solar farm and transmission system, receiving the Design Feasibility Report from CE Partners (Owners Engineer for the project). The report which progresses the solar farm and transmission system to a 30% level of concept design, yielded crucial insights and key outcomes:

- > The Solar Precinct area is found to be capable of supporting 2,600 MWp of solar capacity.
- > The preferred solar system is a single axis tracking system.
- > Annual generation is assessed to be over 5,000 GWh, delivered to the HV transmission system.
- > A four circuit, 275kV transmission line proposed, spanning approximately 30km from the Solar Precinct to the Hydrogen Production and Export Precincts.

With a focus on continuous optimisation and improvement the peak export hydrogen volume for the project has been adjusted to 90,000 tpa. Additional allowance of +/- 10,000 tpa is allocated for the planned optimisation processes, including efforts to reduce identified power losses and further evaluation of efficient equipment design and selection.

Regarding project permitting, the Northern Territory Environment Protection Authority (NTEPA) finalised the EIS “Terms of Reference” on 26 April 2023; a copy of which is published on the NTEPA website at <https://ntepa.nt.gov.au/your-business/public-registers/environmental-impact-assessments-register>.

Preparation and submission of the EIS is now planned for early 2024, covering both the Northern Territory and Federal Government EPBC approval processes. Environmental Consultants will continue with the preparation of the EIS, with submission scheduled for early 2024.

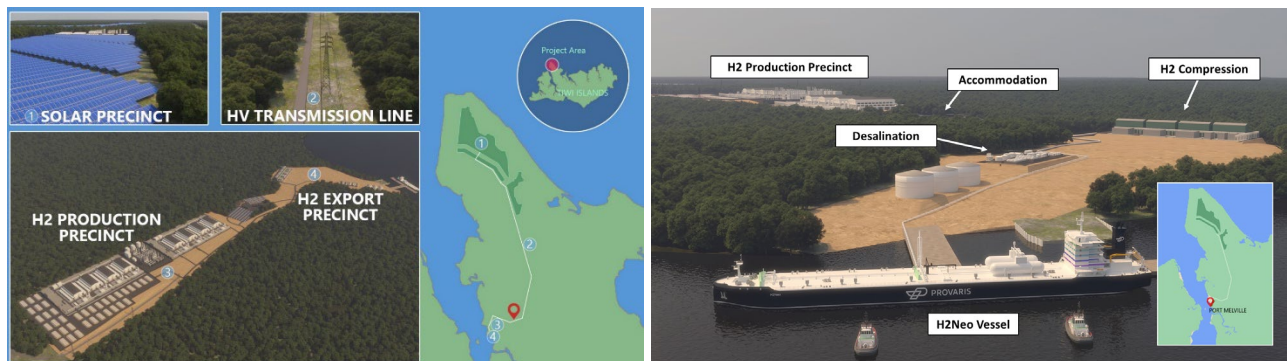
Provaris has actively engaged with the Tiwi Land Council, submitting draft project and land agreements, along with a proposed community benefits package. In 2023 the key focus remains on achieving satisfactory outcomes with the Tiwi Land Council, Tiwi Plantation Corporation, Office of Township Leasing and Deloitte (Port Melville) to finalise contractual agreements and secure land access required for the Tiwi H2 project.

Despite challenges faced in relation to Port Melville, due to the Port sublessee and operator being placed under “administration”, Provaris is actively engaged with Deloitte, the administrator, to determine the future ownership and direction of Port Melville.

With positive progress on contractual and land access arrangements, Provaris is set to commence the Front-End Engineering Design (FEED) and other engineering studies/activities on-site, including an overall geotechnical, hydrological and earthing/lightning program, as well as the initiation of solar monitoring.

To further strengthen the project development process, Provaris is in discussions with potential joint venture partners who share the vision of taking the project through to FEED and a future final investment decision. This collaborative approach is expected to enhance the overall success and impact of the project, positioning Provaris as a key player in hydrogen supply chains.

Illustration of H2 Export Project, Melville Island, Tiwi Islands, Northern Territory.



To view a short animation video of the Tiwi H2 project please [click the image below](#).



H2NEO COMPRESSED HYDROGEN CARRIER DEVELOPMENT

Provaris is diligently progressing with the qualification of selected cargo tank materials and welding procedures in collaboration with C-FER Technologies (Edmonton, Canada). The testing program, initiated in Q2 2022, is now in the final (Stage 3) phase, where full thickness steel samples are undergoing fatigue testing with preferred weld geometry and root and filler weld technologies. Additionally, an alternative type of steel plate has been sourced from a Japanese mill and will undergo testing in August 2023 to ensure compliance with Provaris’ stringent fatigue requirements for the H2Neo testing program.

In July, as part of our investigations for the required tank prototype testing, Provaris awarded Norwegian based Prodtex AS (Prodtex) a contract to design, construct and test a prototype scale tank, alongside SINTEF, Norway’s leading independent research organization.

To ensure the highest standards and certifications for the H2Neo carrier, Provaris has appointed both American Bureau of Shipping (ABS) and Det Norske Veritas (DNV) for certification and final Class Approvals, set to be obtained for the H2Neo carrier in Q1 2024.

Building on their partnership, Provaris and Prodtex have entered into a Technology Collaboration Agreement with a common goal of developing a state-of-the-art fully automated production and fabrication facility in Norway. This facility will be dedicated to the construction of compressed hydrogen tanks serving Provaris' initial fleet of H2 Neo and H2Leo storage barges. Prodtex has a very skilled and experienced team, with a strong background in shipbuilding and a proven track record with fully automated fabrication of complex steel structures.

The innovative tank production facility will target operations mid-2025 and will not only support Provaris' export projects in Norway but also expand its capabilities into onshore static storage solutions. This expansion opens up substantial addressable markets and has the potential to generate cash flow for Provaris in 2025.

The automated tank fabrication line offers cost advantages over existing solutions positioning Provaris as a front-runner in low-cost delivery of hydrogen. Results will include a shorter construction period, lower costs, and higher level of quality assurance.

The collaboration and tank production facility will also focus on a range from single to triple digit tonnage hydrogen storage tanks expanding Provaris' IP and commercial ambitions into onshore static storage solutions, providing the potential for a cash flow generating business in 2025.

Provaris is actively engaging Norwegian government agencies for funding support, and the new tank production facility will likely qualify for various European and Norwegian R&D and Capex subsidy schemes including the EU's Green Deal Industrial Plan. Such funding initiatives will further fuel Provaris' pursuit of excellence and leadership in the hydrogen industry, driving innovation and sustainable solutions for the future.

Prodtex's Production Facility located in Fiskå, Norway



CORPORATE

In May, Provaris showcased its commitment to transparency and innovation by publishing its 2023 Hydrogen Marine Transport Comparison Report. The report conducted a comprehensive analysis, comparing the delivery cost of hydrogen for three hydrogen energy vectors (compression, liquefaction, and ammonia). The findings underscored the overwhelming benefits of compressed hydrogen marine transport, especially when integrated with a variable renewable energy profile for hydrogen production. According to the report's conclusive results, energy use and losses throughout the entire supply chain (generation, production, and delivery) associated with liquefaction and ammonia could exceed 40%. In stark contrast, compression maintained energy efficiency losses below 20%. An extract of the Report's findings is available [here](https://www.provaris.energy).

The Report's discoveries further solidify the numerous advantages of the compressed storage and maritime transport hydrogen supply chain. It highlights that compression represents a viable alternative and low-cost delivery method for the regional transport of hydrogen. **Particularly, compression emerges as the most cost-effective option for regional transport distances ranging from 500 to 3000 nautical miles, with potential volumes of up to 500,000 tonnes per annum (tpa).**

Cash balance on 30 June 2023 was \$5.1 million.

Cash expenditure during the quarter aligned with the FY2023 approved budget, with operating cash outflow of \$1.4 million. Notably, several key development activities relating to H2Neo engineering and material and weld testing, and project development costs were successfully completed in the June quarter, leading to an anticipated reduction in cash outflow in the September quarter. Refer to the separately released ASX Appendix 4C for further details.

During the quarter, the Company received its R&D rebate payment of \$375,000 for the FY2022 claim.

The aggregate amount for payments to related parties and their associates included in item 6.1 in the Company's ASX Appendix 4C for the quarter ended 30 June 2023 was \$225,000 comprising of fees, salaries and superannuation paid to Directors, including Executive Directors.

- END -

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

To receive all company updates please [subscribe](#)

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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")

30 June 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 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	(57)	(270)
(d) leased assets	-	-
(e) staff costs	(634)	(2,749)
(f) administration and corporate costs	(265)	(890)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	47	155
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	155
1.81 Other (R&D Rebate Income)	375	375
1.82 Other (Project development)	(900)	(3,341)
1.9 Net cash from / (used in) operating activities	(1,434)	(6,565)
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 (12 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)	-	-
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	6,497	11,617
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,434)	(6,565)
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)	-	-
4.5	Effect of movement in exchange rates on cash held	7	18
	Cash and cash equivalents at end of period	5,070	5,070

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	2,070	997
5.2	Call deposits	3,000	5,500
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)	5,070	6,497

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	225
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

*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.*

	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	-	-
7.2	-	-
7.3	-	-
7.4	-	-

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)	(1,434)
8.2	Cash and cash equivalents at quarter end (item 4.6)	5,070
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	5,070
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1) <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>	4
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? <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">Answer: N/a</div> 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? <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">Answer: N/a</div> 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? <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">Answer: N/a</div> <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>	

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 July 2023

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.