CLEAN TEQ
Powering innovation

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26 July 2019

Quarterly Activities Report – June 2019

ASX/TSX: CLQ
OTCQX: CTEQF

Corporate Information:

Ordinary shares: 746.5M
Unlisted options: 9.0M
Performance rights: 5.5M
Cash at bank: A$78.9M

Co-Chairmen
Robert Friedland
Jiang Zhaobai

Chief Executive Officer
Sam Riggall

Non-Executive Directors
Judith Downes
Eric Finlayson
Ian Knight
Stefanie Loader
Mike Spreadborough
Shawn Wang

Company Secretary
Melanie Leydin

Contact Details:
12/21 Howleys Rd
Notting Hill VIC 3168

P: +61(0)3 9797 6700
F: +61(0)3 9706 8344
E: info@cleanteq.com
W: www.cleanteq.com

HIGHLIGHTS

- **Clean TeQ Sunrise front end engineering and design progressing steadily, approximately 43% complete**
- **Fluor appointed Project Management Contractor for Sunrise Project**
- **Macquarie Capital appointed to initiate Sunrise partnering process**
- **Construction complete, with commissioning underway, of three world first commercial-scale ion-exchange metal recovery and water purification plants in DRC, Australia and Oman**
- **$14.6 million R&D cash rebate received in July 2019**

About Clean TeQ Holdings Limited

Our vision is to empower the clean revolution by providing specialty materials and clean solutions to a range of industries using our proprietary Clean-iX® continuous ion exchange technology.

Clean TeQ Sunrise

The Clean TeQ Sunrise Project is an advanced nickel, cobalt and scandium project in New South Wales which, when combined with our proprietary continuous ion-exchange processing technology, provides Clean TeQ with the opportunity to become a leading global supplier of nickel and cobalt sulphate to the lithium-ion battery industry. The Project also positions Clean TeQ to provide significant quantities of low-cost scandium for production of the next generation of lightweight aluminium alloys for key transportation markets.

Clean TeQ Water

Clean TeQ's water division delivers cost effective water treatment solutions to the power, mining, oil and gas and municipal industries using our proprietary technologies, including Continuous Ionic Filtration & Exchange (CIF®) and DeSALx®. These technologies are designed to cope with the most demanding waters to provide best in class performance in water recovery and operability.

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CLEAN TEQ SUNRISE NICKEL COBALT SCANDIUM PROJECT

During the quarter, Clean TeQ Holdings Limited (**Clean TeQ** or the **Company**) continued to advance the development of the Clean TeQ Sunrise Project (**Clean TeQ Sunrise** or **Project**) in New South Wales.

PROJECT WORKS

The primary focus for the Sunrise Project team during the quarter was progressing front end engineering and design (**FEED**). FEED work continues to proceed with Clean TeQ's key project delivery partner, Metallurgical Corporation of China Ltd (**MCC**) and their subsidiary company China ENFI Engineering Corporation. Overall, FEED progress is running at approximately 43% complete, and additional resources (from both the Clean TeQ and MCC organisations) have been deployed with a view to maintaining the scheduled completion of FEED by the end of Q3 2019.

During the quarter, following a formal tender process, Clean TeQ confirmed the engagement of Fluor Australia Pty Ltd (**Fluor**) as Sunrise Project Management Contractor (**PMC**). The PMC is a key project delivery partner, who will work with the Clean TeQ owner's team through the FEED phase, and into the project construction and commissioning phases, including overseeing the execution of associated non-MCC/EPC infrastructure and facilities.

Fluor, headquartered in Irving, Texas, has more than 53,000 employees across the globe and has worked in Australia for decades. Fluor provides integrated engineering, procurement, construction and maintenance solutions for clients globally on six continents including Australia and the Asia Pacific region and has extensive experience in project management, engineering, procurement and construction of large-scale, complex processing plants in a range of industries including base and precious metals, chemicals and oil and gas.

Following their appointment, the immediate focus for Fluor was to mobilise their Beijing-based resources into roles in the MCC/ENFI engineering office in Beijing. Fluor will engage GHD with a focus on the non-process plant infrastructure. Fluor and GHD will work together on NSW project execution planning and non-process plant infrastructure design as part of their forward work plan.

GHD is one of the world's leading engineering and professional services companies operating in the global market sectors of water, energy and resources, environment, property and buildings, and transportation. Additionally, GHD has a solid presence in regional NSW, including in the Central West of NSW where the Sunrise Project is located.

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PROJECT FINANCING

On 4 June 2019, Clean TeQ announced that it had appointed Macquarie Capital to run a partnering process for its wholly owned Sunrise Battery Materials Complex. The decision to commence the partnering process followed numerous inbound enquiries from a range of parties in the electric vehicle supply chain in relation to both project level ownership, long-term offtake and other financing arrangements.

The partnering process has progressed well to date with numerous parties assessing an investment of up to 50% of the Sunrise project, in combination with long-term offtake arrangements. The interested parties participating in the process come from a broad range of geographies and industries, including groups from inside and outside the electric vehicle battery supply chain. Clean TeQ is targeting concluding the partnering process in the second half of 2019 to align with a final investment decision planned for Q4 2019. Clean TeQ will continue to keep shareholders updated in relation to the partnering process.

CLEAN TEQ WATER

Clean TeQ Water is focused on completing key projects in Australia, Oman, DRC and China, with continued strong progress made over the past quarter.

Figure 1 - Clean TeQ plant installation at Fosterville Gold Mine, Victoria

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PROJECT WORKS

At the Fosterville Gold Mine in Victoria, Australia, Clean TeQ was engaged to design, supply and commission a 2 million litre-per-day Clean TeQ DeSALx® mine water treatment plant. The plant is designed to deliver a sustainable water management solution by treating mine process water for reuse in the mine operations. Construction of the plant was completed in Q1 2019 with commencement of commissioning taking place during Q2. The commissioning process has been progressing and performance testing (required for successful completion and formal handover of the plant) is scheduled for Q3.

In Oman, engineering, delivery and construction of the Clean TeQ waste water treatment plant delivered in partnership with Multotec Process Equipment Ptd Ltd (**Multotec**) has been completed. The final commissioning phase will commence later this year when the customer begins delivering waste water to the CIF® plant for treatment. Based on the latest overall plant completion schedule advised by the customer, commissioning of the Clean TeQ plant is expected to commence in Q3 of 2019.

Figure 2 – Clean TeQ CIF® plant constructed and awaiting commissioning in Oman

In the DRC, Clean TeQ has been engaged to design and construct a Continuous Resin-In-Column (**cLX**) Ion Exchange plant to treat up to 20 million litres-per-day of a raffinate stream, removing contaminant metals and improving the quality and environmental rank of the raffinate, prior to further processing. All construction was completed during Q1 2019 with hot commissioning commencing shortly thereafter. Initial tests showed that

the cLX plant was performing well, exceeding design expectations. However, an accidental uncontrolled release of very high-pressure water from the main plant into the cLX system resulted in some damage being caused to the Clean TeQ plant, taking it offline. As well as the damage caused by the high-pressure release, significant corrosion was identified in some parts of the plant which were provided to the customer by a third-party equipment supplier. The damage is currently being repaired and some additional modifications are being installed upstream of the cLX plant to prevent a similar event occurring again. Expectations are for a restart of the plant over the coming months, with performance testing of the cLX system in Q4 2019.

Figure 3 – Clean TeQ Continuous Resin-In-Column Ion Exchange plant in DRC

Figure 4 – Clean TeQ Continuous Resin-In-Column Ion Exchange plant in DRC

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These three Clean TeQ systems are the first of their type anywhere in the world and have been deployed as part of three different technical solutions. The successful delivery and commissioning of these three plants demonstrates the efficacy of Clean TeQ's suite of proprietary ion exchange technologies and their versatility for metal extraction and waste water treatment. As commercial scale plants, the facilities provide a valuable platform from which to rapidly grow Clean TeQ Water.

WATER TECHNOLOGY DEVELOPMENT

During the quarter Clean TeQ successful completed a hardness removal demonstration project in Inner Mongolia for Jiutai New Material (**Jiutai**).

Figure 5 – Clean TeQ Continuous Ionic Filtration (CIF®) Mobile Demonstration Plant

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The aim of the project was to confirm, at demonstration scale, the cost effectiveness of Clean TeQ's continuous ion exchange process to remove hardness from highly saline brines to increase the recovery rates of subsequent membrane systems and thus improve water recoveries for recycling and reduce the volume of polluting waste brine.

During the demonstration project Clean TeQ's mobile demonstration unit treated reverse osmosis (**RO**) filtration brine continuously for two weeks, consistently removing hardness (Calcium and Magnesium) down to zero to allow the subsequent second step RO to significantly increase water recovery.

The demonstration program treated wastewater from a large coal-to-chemical refinery, producing DME (Dimethyl Ether) owned by Jiutai located about 100 km from Hohhot, China. The process requires large volumes of industrial grade water, putting a strain on sources of water supply in this water-scarce region. The demonstration program confirmed that increasing water recovery by adopting Clean TeQ's CIF® system could substantially reduce the plant's net water use.

Successful completion of this campaign provides a valuable demonstration of yet another application for the Clean TeQ water technology in addition to the commercial scale plants currently nearing completion in Australia, Oman and DRC. Over the coming months, the Company plans to expand this marketing and technology demonstration campaign by deploying the mobile CIF® unit to other facilities in China which have similar issues as Jiutai with a view to generating additional sales.

The Company continued to expand its water technology platform during the quarter with the ongoing development of the encapsulated bacteria 'CleanBio lenses' manufacturing facility in China. In 2018 Clean TeQ water acquired an encapsulated bacteria technology from LentiKats, comprising technology licences and a production plant for the manufacture of encapsulated bacteria 'CleanBio lenses'. The LentiKats technology is useful in water treatment applications given the bacteria's ability to break down and remove over ninety percent of harmful nitrates and ammonia from waste water. The bacteria are encapsulated in proprietary 'lenses' to protect them from harmful conditions in the waste waters. The Company has established a production facility for CleanBio lenses in China for application in its growing pipeline of global projects. During the quarter the Company completed the installation of the manufacturing equipment at a facility in Tianjin, China, with commissioning anticipated to take place in Q3 CY2019.

HOYO JOINT VENTURE

In August 2016 Clean TeQ and Jinzhong Hoyo Municipal Urban Investment & Construction Co., Ltd (**Hoyo**) announced an agreement to form a joint venture to build, own and operate a Clean TeQ Continuous Ionic Filtration (**CIF®**) commercial scale water treatment plant at an existing wastewater treatment facility owned and operated by a subsidiary of Hoyo in Shanxi Province. Design and engineering of the plant was

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completed shortly thereafter, and plans were submitted to the regional design institute (government technical regulator) for approval. Notwithstanding the best efforts of Clean TeQ and Hoyo personnel over a number of years, the Chinese joint venture company has still not been able to obtain the requisite government approval for the plant which is required to progress to the next stage of environmental and construction permits.

Given the extent of the delay, Clean TeQ and Hoyo have mutually agreed to terminate the joint venture agreement, dissolve the joint venture company and repatriate the equity contributions made into the joint venture entity to date. While it is disappointing to abandon the plan to develop what would have been the first commercial scale plant built in the world using CIF® to upgrade treated municipal effluent to surface water discharge quality, given the Company's emerging success in delivering projects in Australia, Oman and DRC, and in light of other opportunities currently being pursued, the Company considers that the best current course of action is to withdraw from the Hoyo project rather than persisting with allocating resources to a relatively small-scale build-own-operate project in China.

OTHER PROJECTS

Clean TeQ has been advised that it is the preferred technical solution for the design and construction of a recycled water re-use plant at the Cleveland Bay Purification Plant in Townsville. Commercial negotiations between the parties are ongoing. Final award of a contract will be subject to a range of conditions including agreement on commercial terms and financing.

TECHNOLOGY DEVELOPMENT

Clean TeQ's technology development team continues to advance its work in the development of graphene oxide nanofiltration membranes and adsorbents, as well as ongoing development of the CIF® technology for water treatment applications.

NEMATIQ JOINT VENTURE

In late-2018, Clean TeQ and Ionic Industries established a joint venture company NematiQ Pty Ltd (**NematiQ**) to pursue in partnership the development of graphene oxide (**GO**) membranes for water treatment applications. All documentation for the various commercial agreements and technology licences have now been finalised, and NematiQ's work program has commenced.

Over the past two years, Clean TeQ and Ionic have developed a process to manufacture high-purity GO that can be applied to a membrane support to create a graphene nanofiltration membrane (**GO-Membrane**). Significantly, the GO-Membrane

manufacturing process has been demonstrated on commercial scale industrial equipment.

NematiQ has established a factory and office premises in Notting Hill, adjacent to the existing Clean TeQ head office and laboratory. From this facility, NematiQ is focused on optimising its proprietary process for refining graphite oxide raw material into graphene oxide, which is used to form the filtration layer of the GO-Membrane. A plant for the manufacture of high purity graphene oxide has been designed and installed at NematiQ's premises, with graphene oxide produced by the facility to be used for larger scale manufacture of graphene oxide membranes.

The ultimate goals of the NematiQ work programs are to:

a) Confirm the technical process and cost effectiveness of the refining process to convert the raw material graphite oxide into high purity GO. This process has been successfully completed;

b) Demonstrate the GO coating process at commercial scale using a specialised process developed and patented by Monash University and licensed to NematiQ. These activities are currently underway; and,

c) Refine the printing process to demonstrate the ability to produce GeO membranes at commercial scale with the appropriate physical properties, flow rates and filtering capability.

Figure 6 – Dr Sam Martin and Dr Sebastian Hernandez holding a graphene oxide membrane produced on an industrial-scale printer at the NematiQ facility in Notting Hill, Victoria

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In water purification applications, graphene oxide membranes have the potential to offer distinct operational advantages over the current polymer nanofiltration membranes, providing a significant commercial opportunity should the technology prove successful.

The benefits of graphene oxide nanofiltration membranes when compared to conventional nanofiltration membranes include higher flux (flow rates) and lower propensity to fouling. These benefits have the potential to deliver lower operating costs, longer membrane life and lower maintenance costs.

CORPORATE

As at 30 June 2019, the Company's cash balance was A$78.9 million.

In July 2019, the Company received a cash payment of A$14.6 million from the Australian Tax Office, representing the refundable tax offset available under the Research and Development (**R&D**) Tax Incentive for FY18. Clean TeQ's R&D activities during FY18 included valuable work to further advance the Company's proprietary Clean iX® continuous ion exchange technology platform. These efforts have generated significant benefits for the development of the Clean TeQ Sunrise Nickel/Cobalt/Scandium Project, as well as several important projects currently being commercialized within Clean TeQ Water.

The R&D Tax Incentive program is designed to provide targeted R&D rebates and tax offsets to encourage more companies to engage in R&D in Australia. The R&D tax incentive aims to boost competitiveness and improve productivity across the Australian economy by encouraging industry to conduct R&D that may not otherwise have been conducted.

The ATO jointly administers the R&D tax incentive with the Department of Industry, Innovation and Science (on behalf of Innovation and Science Australia).

For more information about Clean TeQ contact:

Ben Stockdale, CFO and Investor Relations (Australia) +61 3 9797 6700

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FORWARD-LOOKING STATEMENTS

Certain statements in this Quarterly Activities Report constitute “forward-looking statements” or “forward looking information” within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of the Company, the Clean TeQ Sunrise Project, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as “may”, “would”, “could”, “will”, “intend”, “expect”, “believe”, “plan”, “anticipate”, “estimate”, “scheduled”, “forecast”, “predict” and other similar terminology, or state that certain actions, events or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved. These statements reflect the Company’s current expectations regarding future events, performance and results, and speak only as of the date of this Quarterly Activities Report. Statements in this Quarterly Activities Report that constitute forward-looking statements or information include but are not limited to, statements regarding: the completion of the FEED phase and project financing; the timing and commencement of construction at the Project; the making of a final investment decision in 2019; finalisation of product offtake agreements; and anticipated construction and/or completion of the various Clean TeQ Water projects and research and development undertakings.

Readers are cautioned that actual results may vary from those presented.

All such forward-looking information and statements are based on certain assumptions and analyses made by Clean TeQ’s management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; changes in commodity prices; unexpected failure or inadequacy of infrastructure, or delays in the development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations.

Other important factors that could cause actual results to differ from these forward-looking statements also include those described under the heading "Risk Factors" in the Company's most recently filed Annual Information Form available under its profile on SEDAR at www.sedar.com.

Readers are cautioned not to place undue reliance on forward-looking information or statements.

Although the forward-looking statements contained in this Quarterly Activities Report are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this Quarterly Activities Report and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this Quarterly Activities Report.

+Rule 4.7B

Appendix 4C

Quarterly report for entities subject to Listing Rule 4.7B

Introduced 31/03/00 Amended 30/09/01, 24/10/05, 17/12/10, 01/09/16w

Name of entity

CLEAN TEQ HOLDINGS LIMITED

ABN	**Quarter ended ("current quarter")**
34 127 457 916	March 2019

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (9 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	1,078	4,421
1.2	Payments for		
	(a) research and development	(140)	(420)
	(b) product manufacturing and operating costs	(9)	(2,662)
	(c) advertising and marketing	(165)	(716)
	(d) leased assets	(137)	(745)
	(e) staff costs	(1,298)	(4,998)
	(f) administration and corporate costs	(2,124)	(9,079)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	707	2,338
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(2,088)**	**(11,861)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire:		
	(a) property, plant and equipment	(818)	(3,839)
	(b) businesses (see item 10)	-	-
	(c) investments	-	-

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Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (9 months) $A'000**
	(d) intellectual property	-	(250)
	(e) other non-current assets	(14,762)	(37,282)
2.2	Proceeds from disposal of:		
	(a) property, plant and equipment	-	6
	(b) businesses (see item 10)	-	-
	(c) investments	-	-
	(d) intellectual property	-	-
	(e) 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)	25	25
2.6	**Net cash from / (used in) investing activities**	**(15,555)**	**(41,340)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of shares	-	-
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	344
w3.4	Transaction costs related to issues of shares, convertible notes or options	-	-
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)	(66)	(66)
3.10	**Net cash from / (used in) financing activities**	**(66)**	**278**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of quarter/year to date	117,423	152,637
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,088)	(11,861)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(15,555)	(41,340)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(66)	278

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (9 months) $A'000**
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of quarter**	**99,714**	**99,714**

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	99,714	99,714
5.2	Call deposits	-	-
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)**	**99,714**	**99,714**

6.	**Payments to directors of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to these parties included in item 1.2	205
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

7.	**Payments to related entities of the entity and their associates**	**Current quarter $A'000**
7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

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8.	**Financing facilities available** *Add notes as necessary for an understanding of the position*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
8.1	Loan facilities	-	-
8.2	Credit standby arrangements	-	-
8.3	Other (please specify)	-	-

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

9.	**Estimated cash outflows for next quarter**	**$A'000**
9.1	Research and development	(300)
9.2	Product manufacturing and operating costs	(150)
9.3	Advertising and marketing	(80)
9.4	Leased assets	(140)
9.5	Staff costs	(1,985)
9.6	Administration and corporate costs	(1,040)
9.7	Clean TeQ Sunrise Project Costs	(20,880)
9.9	**Total estimated cash outflows**	**(24,575)**

10.	**Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)**	**Acquisitions**	**Disposals**
10.1	Name of entity	N/A	N/A
10.2	Place of incorporation or registration	N/A	N/A
10.3	Consideration for acquisition or disposal	N/A	N/A
10.4	Total net assets	N/A	N/A
10.5	Nature of business	N/A	N/A

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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.

Sign here: ..... Date: 26 July 2019
Company Secretary

Print name: Melanie Leydin

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly 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 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.

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