

19 October 2021

Quarterly Activities Report

MELBOURNE, Australia – Sunrise Energy Metals Limited (**Sunrise Energy Metals** or **Company**) (ASX:SRL and OTC:SREMF) is pleased to provide an update on its activities for the quarter ended 30 September 2021.

Key Developments:

- **Work streams to advance the development of the fully integrated Sunrise Battery Materials Project continue with activities focused on:**
 - **Processing of an application for a modification of the Project’s NSW Development Consent.**
 - **Temporary relocation of autoclaves.**
 - **Progressing the long-lead electrical transmission line (ETL) work scope.**
 - **Advancing ongoing commercial discussions with landowners, local councils, the NSW State Government and other impacted parties for land access agreements required for key infrastructure including the water pipeline and the ETL.**
 - **Commencement of drilling on one of the Company’s exploration licences for limestone resources, a key process reagent used in the Sunrise Project’s processing plant.**
- **The offtake agreement with Beijing Easpring, signed in 2017, was terminated by mutual agreement. The result is that the Company now has 100% of its future nickel and cobalt production available as it seeks to arrange a financing package for the Project.**
- **The 3-hole second phase of the drilling campaign at the Phoenix Platinum Zone has been completed, with assay results expected during October.**
- **The acquisition of the Hylea Project achieved completion, expanding the Company’s footprint in the highly prospective Lachlan Fold Belt. The Hylea Project is located approximately 50km north of the Sunrise Project and exhibits similar geology and encouraging cobalt grades from previous drilling.**
- **The demerger of Clean TeQ Water Limited was implemented on 1 July 2021 in line with the timetable detailed in the Demerger Booklet released to the ASX on 17 May 2021.**
- **The Company had A\$33 million cash on hand as at 30 September 2021.**

Managing Director and CEO, Sam Riggall said: *“With the demerger of Clean TeQ Water now complete, Sunrise Energy Metals is firmly focussed on progressing the Sunrise Battery Materials Complex. In particular, work continues on a number of fronts to deliver a comprehensive financing package for the Project. The recent media announcements by the Australian and US federal governments on plans to increase inter-governmental co-operation for the financing, development and production of undeveloped projects containing critical metals (which includes nickel, cobalt and scandium) in Australia is particularly welcome. During the quarter, the Company continued to progress a range of Project activities, with assay results from Phase Two of the Phoenix Platinum program expected shortly. With the Hylea acquisition now complete, our exploration portfolio extends over 2,750km² in the highly prospective Lachlan Fold Belt. We look forward to updating the market on our exploration activities and further developments at the Sunrise Project in coming quarters.”*

OCCUPATIONAL HEALTH AND SAFETY

The Company had no lost time injuries or reportable environmental incidents recorded during the quarter.

There have been no COVID-19 cases during the quarter, and the Company continues to maintain appropriate protocols across all locations to minimise the potential transmission of COVID-19.

SUNRISE BATTERY MATERIALS COMPLEX

During the quarter, the Company continued to advance the development of the Sunrise Battery Materials Complex (**Sunrise Project**) in New South Wales, Australia. The Sunrise Project is Australia’s largest and most advanced battery materials project (nickel and cobalt) and contains the world’s largest and highest-grade scandium resource. The Project is fully integrated from mine to battery chemicals with annual forecast production of 21kt of nickel and 4.5kt of cobalt, with potential to produce 200 tonnes per annum of scandium oxide.

Significant project work and technical studies have identified the key development pathways and workstreams associated with the construction of the project, with approximately A\$250M invested in pre-development capex to date. All key permits are in place, the Company owns all the freehold land, and has land access agreements in place for Crown land, for the main Project site. The Project displays exceptional project economics with life of mine revenue of over US\$16.3 billion, average annual post-tax free cash flow of US\$308m and an NPV₈ of US\$1.2 billion.¹

A range of workstreams remain ongoing to progress a number of value-adding deliverables aimed at minimising Project start time once funding is secured. Key work programs include:

¹ Average over first decade of operation. Financial evaluation based on first 25 years of operation. Refer to ASX Release of 28 September 2020 for more details

Permitting and approvals

The Company completed a Project Execution Plan (**PEP**) in late 2020. Undertaken by an integrated Sunrise Energy Metals and Fluor Australia Pty Ltd (Fluor) team, the PEP updated the 2018 Definitive Feasibility Study, incorporating revised cost estimates, updated design and engineering work as well as a revised master schedule for the engineering, procurement, construction, commissioning and ramp-up of the Project. The PEP resulted in several enhancements to the Project layout and design, requiring a handful of modifications to be made to the Sunrise Project Development Consent – the key NSW state government approval. During the quarter the Company progressed the process for approval of these modifications. Final approval of the modification is anticipated by December 2021.

Progress continues on the long-lead electrical transmission line (**ETL**) work scope. The application to connect to the NSW electrical grid is currently in progress and will continue through CY21. Connection to the NSW electrical grid is a key enabler of the Company's commitment to procure renewable energy to supply 100% of the Project's external power requirements.

The Company has also continued to progress commercial discussions with landowners, local councils, the NSW State Government and other impacted parties required for land access agreements for key infrastructure including the water pipeline and the electrical transmission line.

Autoclaves

The Company owns two autoclaves – the major component of the hydrometallurgical leaching circuit for the Sunrise Project – which are stored at Port Pirie. Due to significant port maintenance works soon to be undertaken at Port Pirie, the autoclaves are required to be relocated to an alternate storage location. During the quarter the Company progressed the preparatory works for the move, including permitting and relocation of overhead powerlines. The move itself is scheduled to take place in late October.

The autoclaves and their associated equipment are unused, in excellent condition and are ideally sized for the Sunrise Project. Manufactured with steel shells and an explosively bonded titanium lining, they are designed to withstand the operating conditions required for the effective leaching of nickel, cobalt and scandium from the Sunrise ore. The key features of the autoclaves include:

- Each of the two autoclaves, weighing approximately 600 tonnes, can manage a slurry volume of 647m³, which is more than sufficient to achieve the required residence time for an anticipated 2.5Mtpa ore throughput;
- They operate at slurry temperatures of 250°C and an operating pressure of 4500 kPa, sufficient to prevent the slurry from evaporating;
- Turbulence within the compartments of the vessels is maintained by vertical-shaft agitators to ensure mixing of the solids and acid; and,
- The low pH (acid) slurry necessitates a titanium lining of the autoclaves, to protect the steel shell of the pressure vessel.



One of Sunrise's two autoclaves

The autoclaves were purchased from Vale International S.A., a subsidiary of Brazilian multinational metals and mining group, Vale SA, for US\$6.5 million. Vale arranged the design and fabrication of these vessels by Coek Engineering N.V, Belgium, in 2006 for the Niquel do Vermelho project in Brazil. Vale also procured agitators, mechanical seals and seal skids for each autoclave vessel from Ekato Corporation. Coek is recognised as a world leader in the design and fabrication of such vessels. Ekato is considered a leader in agitator technology.

Vale discontinued the Niquel do Vermelho Project following the acquisition of Inco Limited and its Goro Nickel Project (under construction at the time) in 2006. The Niquel do Vermelho autoclaves remained in storage with Coek in Rotterdam for several years until Vale shipped them to the Goro Project in New Caledonia in 2012. The autoclaves were stored there, in a customs bonded yard, until they were acquired by Sunrise Energy Metals and shipped to Port Pirie for storage. The agitators and associated equipment have been stored at Ekato's manufacturing facility in Schopfheim, Germany, since their fabrication.

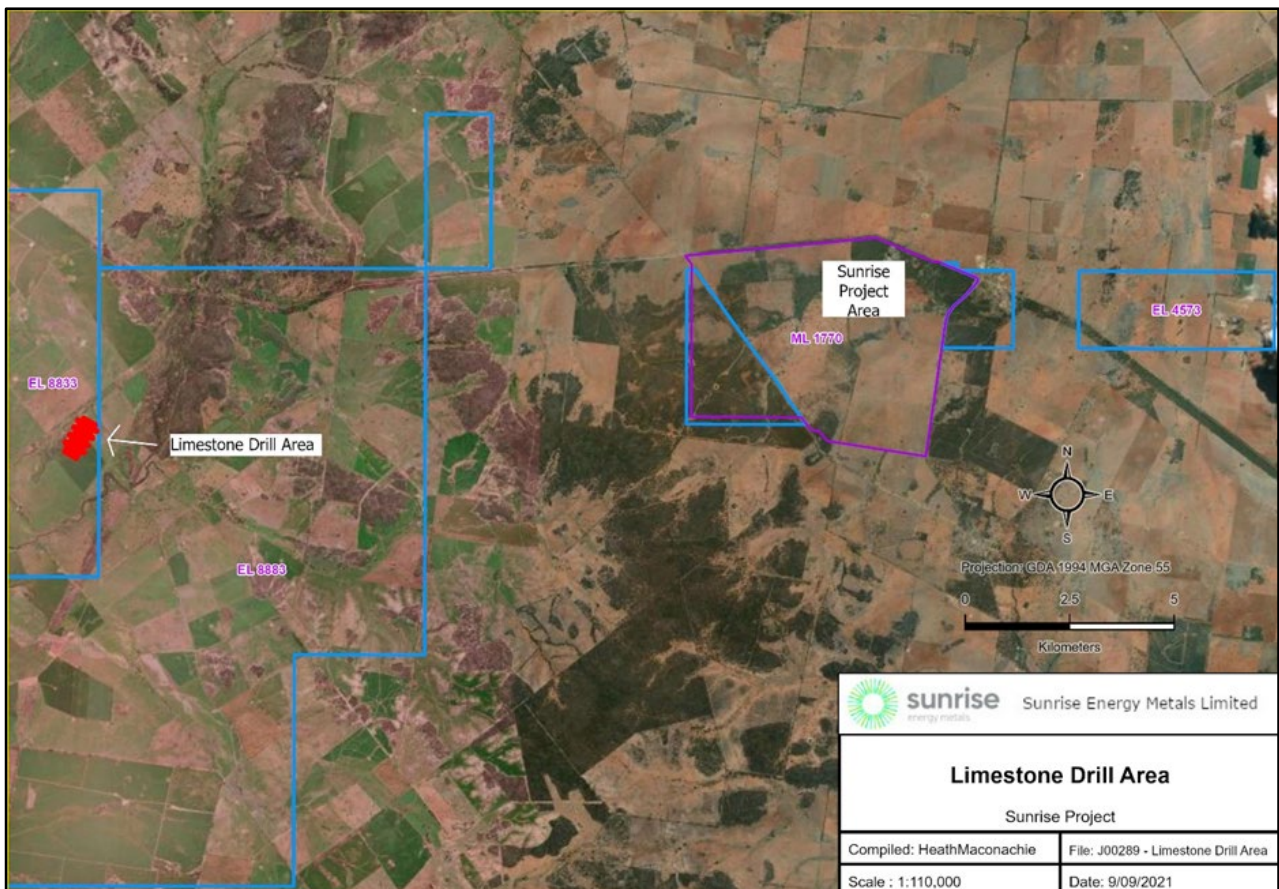
Offtake

In 2017 the Company entered into a binding offtake contract with Beijing Easpring Material Technology Co Ltd (**Easpring**) under which the Company committed to sell tonnages representing approximately 20% of the nickel and cobalt sulphate production for the first five years of operation

of the Sunrise Project. During the quarter the Company (with the mutual agreement of Easpring) terminated the offtake contract. As a result of this, the Company now has all the production of battery materials from the Sunrise Project available for sale to strategic partners who may want product offtake as a condition of investment in the Project.

Limestone Exploration

The Company commenced a drilling program on EL8833 which is prospective for limestone. Limestone is a key reagent used in the Sunrise Project’s process plant. The Company has a contract in place to secure limestone from a quarry near Parkes which is sufficient for the operations of the mine. The purpose of the current limestone drilling program is to determine if an additional source of limestone can be delineated which is closer to the mine site in order to supplement the supply from the third-party quarry as well as reducing trucking distances for this important bulk reagent.



Proximity of limestone exploration area to Sunrise Project

Test Work Programs

The Company is progressing a number of research and development workstreams aimed at demonstrating the capability of the Sunrise Project to diversify further downstream into production

of precursor cathode active material as well as processing of the lithium-ion battery recycling intermediate product, 'black mass'.

Part of this work scope will be undertaken through the Future Battery Industries Co-operative Research Centres Program (FBICRC), of which Sunrise Energy Metals is an associate member of the independently managed government-industry partnership to build an Australian battery industry.

Scandium Development

During the quarter the Company entered into a binding agreement for the development of aluminium-scandium alloys with UACJ Corporation (**UACJ**). The Agreement with UACJ, Japan's largest aluminium producer, will focus on the research and future development of aluminium-scandium alloys for use in transportation parts and equipment. Under the Agreement UACJ and Sunrise will develop a range of aluminium-scandium alloys for material characterisation testing in specific components. Sunrise will contribute its technical expertise and, over time, provide the scandium needed by UACJ for use in the alloys.

EXPLORATION ACTIVITIES

The Company continues to advance activities across its range of exploration assets in NSW.

Phoenix Platinum Zone

Sunrise Energy Metals launched a drilling campaign in late 2020 to target the Phoenix platinum anomaly at the Sunrise Project. The first hole (SDD022) of an initial three-hole campaign returned an extraordinarily high-grade intersection of 0.6m at 129g/t platinum at 255.9m downhole². The intersection included significant grades of palladium, rhodium, iridium, osmium and ruthenium.

During the quarter the Company completed the next phase of the drilling campaign at the Phoenix Platinum Zone. A further three holes, totalling 1054 metres, were drilled, targeting intersections of high-grade mineralisation within the chromite-bearing structure. Several significant chromite veins were intersected in two of the three holes, suggesting chromite mineralisation may continue along a 50 metre strike and 150 metre down-dip extension of the high-grade intercept in hole SDD022. Chromite veins are thought to be the principal host of the PGE's in the Sunrise ultramafic intrusion.

Drilling was completed during the quarter, with the samples currently awaiting assay results. The Company anticipates receiving initial results during October.

² For full details including JORC disclosures refer to ASX announcement of 3 May 2021



Phase Two of the Phoenix Platinum Zone Drilling campaign at the Sunrise Project

Sunrise North Project

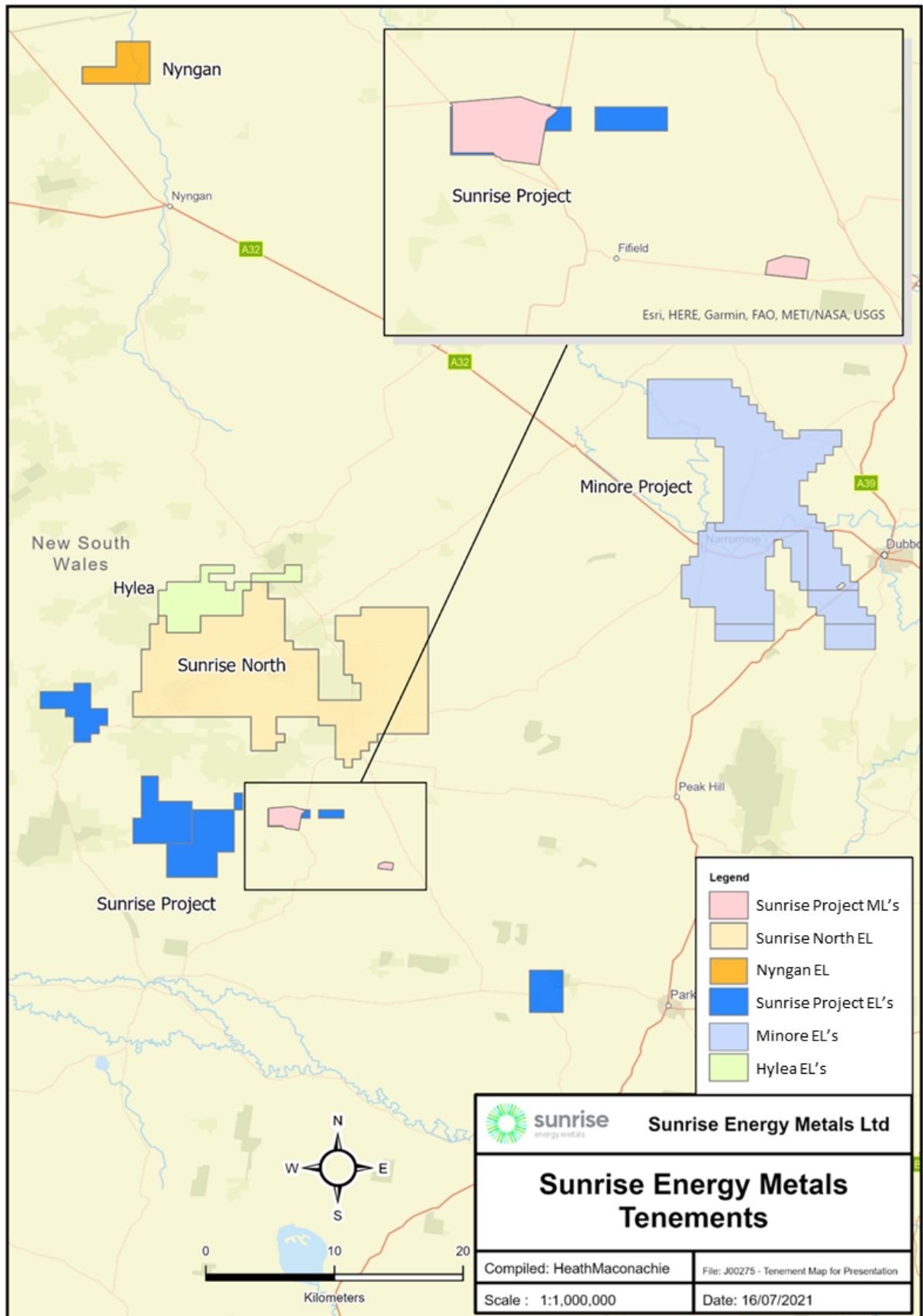
During the quarter, the Company was granted a 1,230 square kilometre tenement (EL9259) 20km north of the Sunrise Project – ‘Sunrise North’. Sunrise North abuts several large magnetic anomalies to the southwest of the lease and includes what is interpreted to be the edge of the western limb of the Macquarie Arc. The magnetic anomalies are most likely Alaskan-style ultramafic intrusions and may hold additional laterite nickel, cobalt and scandium mineralisation as well as platinum.

The main magnetic anomaly was drilled by a single historic reverse circulation drill hole to a depth of 135m but was terminated in siltstone cover rocks due to excessive water. Six rotary air blast holes were also drilled to a maximum depth of 56m further east on the less prominent magnetic anomalies and were terminated in schist. Exploration will initially focus on analysis and interpretation of existing government geophysical surveys, including gravity and magnetic surveys, to better resolve the nature of the high gravity anomalies observed in the government data.

Nyngan Project

The Company was also granted a tenement (EL9211) 160 km north of the Sunrise Project. The 80 square kilometre lease area was previously unpegged ground. The lease area covers the Horton Park Igneous Complex, a continuation of the Alaskan-style ultramafic complexes that stretches along the

western boundary of the Macquarie Arc system within the Lachlan Fold Belt. The application area has had no previous drilling undertaken on it.



Sunrise Energy Metals' Mineral Tenements

The exploration strategy is to undertake preliminary reconnaissance exploration including soil and grab sampling to establish a geological framework from which to advance the next phase of exploration work. Variable thicknesses of Quaternary sediment cover overlies the complex with the Macquarie River on the eastern edge of the lease area.

CORPORATE

Demerger of Clean TeQ Water

The demerger of Clean TeQ Water Limited was implemented on 1 July 2021 in line with the timetable detailed in the Demerger Booklet released to the ASX on 17 May 2021.

Hylea Acquisition completion

During the quarter, the Company's acquisition of the Hylea Project was completed. The Hylea Project is located approximately 50 kilometres north of the Sunrise Project on the western side of the Lachlan Orogen. Its geology exhibits late-stage post-orogenic zoned Alaskan-Ural style intrusives covering an area of some 25 square kilometres with a similar geological setting to the Sunrise Project, where the weathered surface expression of the intrusive hosts nickel, cobalt and scandium mineralisation. Sunrise Energy Metals acquired a 100% interest in Exploration Licences EL8520, EL8641 and EL8801 for A\$2.5 million, with A\$1.0 million paid in cash and A\$1.5 million paid in SRL shares (724,086 shares).

This announcement is authorised for release to the market by the Board of Directors of Sunrise Energy Metals Limited.

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About Sunrise Energy Metals

Sunrise Energy Metals Limited (SRL:ASX) is progressing its world-class Sunrise Battery Materials Complex in New South Wales, utilising its Clean-iX® technology. The Sunrise Project is one of the largest and most cobalt-rich nickel laterite deposits in the world and is development-ready, with all key permits and approvals in place. Sunrise is also one of the largest and highest-grade scandium deposits globally. For more information about Sunrise Energy Metals please visit the Company's website www.sunriseem.com

Forward Looking Statements

Certain statements in this news release 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 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 new release. Readers are cautioned not to place undue reliance on forward-looking information or statements.

Although the forward-looking statements contained in this news release 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 news release 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 news release.

Appendix 4C

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

Name of entity

SUNRISE ENERGY METALS LIMITED

ABN

34 127 457 916

Quarter ended ("current quarter")

30 September 2021

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	22	22
1.2 Payments for		
(a) research and development	(25)	(25)
(b) product manufacturing and operating costs	-	-
(c) advertising and marketing	(16)	(16)
(d) leased assets	(86)	(86)
(e) staff costs	(1,148)	(1,148)
(f) administration and corporate costs	(1,633)	(1,633)
(g) Sunrise Project expenditure	(1,126)	(1,126)
(h) mineral exploration	(796)	(796)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	22	22
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	(4,787)	(4,787)
2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	-	-

Consolidated statement of cash flows	Current quarter A\$'000	Year to date (12 months) A\$'000
(d) investments	(1,000)	(1,000)
(e) intellectual property	-	-
(f) other non-current assets	-	-
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	(1,000)	(1,000)

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 Cash backing of security bonds	195	195
3.10 Demerger of Clean TeQ Water [#]	(16,005)	(16,005)
3.11 Other (provide details if material)	-	-
3.12 Net cash from / (used in) financing activities	(15,810)	(15,810)

[#] On 1 July 2021 Clean TeQ Water Limited was demerged from the Sunrise Energy Metals Limited group of companies. The amount presented at item 3.10 is the cash on hand attributable to Clean TeQ Water upon the demerger occurring.

Consolidated statement of cash flows		Current quarter A\$'000	Year to date (12 months) A\$'000
4.	Net increase / (decrease) in cash and cash equivalents for the period	(21,597)	(21,597)
4.1	Cash and cash equivalents at beginning of period	54,657	54,657
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(4,787)	(4,787)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1,000)	(1,000)
4.4	Net cash from / (used in) financing activities (item 3.12 above)	(15,810)	(15,810)
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	33,060	33,060

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	33,060	33,060
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)	33,060	33,060

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	-
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

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

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 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.

8. Estimated cash available for future operating activities	A\$'000
8.1 Net cash from / (used in) operating activities (Item 1.9)	(4,787)
8.2 Cash and cash equivalents at quarter end (Item 4.6)	33,060
8.3 Unused finance facilities available at quarter end (Item 7.5)	-
8.4 Total available funding (Item 8.2 + Item 8.3)	33,060
8.5 Estimated quarters of funding available (Item 8.4 divided by Item 8.1)	6.9

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.

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?

Answer:

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?

Answer:

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?

Answer:

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.

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: 19 October 2021

Authorised by the Board of Directors of Sunrise Energy Metals Limited

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.