ASX ANNOUNCEMENT

31 OCTOBER 2023

September 2023 Quarterly Activities Report

HIGHLIGHTS

Sparc Hydrogen

- **Commencement of testing of Sparc Hydrogen's photocatalytic water splitting (PWS) reactor at the CSIRO Energy Centre in Newcastle, NSW**
- **Hydrogen gas production has been measured together with other data which will feed into pilot scale reactor development**
- **Completion of prototype testing expected in November**
- **Sparc Hydrogen awarded A$470,511 under AEA grant program with funds to be used to continue and accelerate laboratory and on-sun prototype testing of Sparc Hydrogen's PWS reactor**
- **Sparc Hydrogen funding received through the CSIRO Kick-Start Program in addition to a ~A$419k R&D tax rebate**
- **Launch of new website www.sparchydrogen.com**

Graphene

- **Fully independent lifecycle assessment (LCA) has shown an 18 - 21% reduction[1] in CO2-e emissions and 19 – 23%[1]reduction in asset maintenance costs through the use of ecosparc® enhanced coatings**
- **Reported further testing results supporting performance enhancement in Thermal-Cycling Crack, Impact Resistance, Wearability, Cathodic Disbondment and repeat Scribe Creep testing using ecosparc® enhanced coatings**
- **Results support Sparc Technologies' strategy of targeting asset owners to conduct field based trials of ecosparc® enhanced coatings, in parallel with continued product testing with global coatings companies.**
- **Launch of new website – www.ecosparc.com.au**

Sodium Ion Batteries

- **Reported additional testing results showing up to 63% improvement in reversible capacities for hard carbon anode materials produced from sustainable bio-waste feedstock**
- **Acceleration of R&D planned and techno-economic analysis underway**
- **QUT and Sparc Technologies awarded A$384,271 under AEA grant program**

[1] Bontinck, P, A (2023), Carbon footprint of ecosparc® graphene additive for protective coating applications, Lifecycles, Melbourne, Australia

- **Funds will be used to accelerate full battery cell testwork and scale up of processing equipment for the development of sustainable sodium ion battery anode materials**
- **Sparc's second successful project application under the A$10m AEA Seed round**

Corporate

- **Mr. Adrien Wing appointed as a Non-Executive Director (NED) on 29 September 2023 and will continue in his role as Company Secretary**
- **Ms. Stephanie Moroz resigned as a Non-Executive Director on 29 September 2023**
- **Appointment of Mr. Tim Conroy as a Renewable Energy Consultant**
- **Sparc Operations Pty Ltd to lodge AusIndustry R & D Tax Incentive Refund early November 23**
- **$1.99m cash at bank as at 30 September 2023**

Sparc Technologies Limited (ASX: SPN) (**Sparc** or the **Company**) is pleased to provide its September 2023 Quarterly Activities Report.

Sparc Hydrogen

During the quarter, activities at Sparc Hydrogen, which is a JV between the University of Adelaide (28%), Fortescue Future Industries (FFI) 20%, and Sparc Technologies 52%, focused on reactor prototype testing at the CSIRO Energy Centre in Newcastle.

Prototype testing of Sparc Hydrogen's reactor in real world conditions is the culmination of >5 years of research and development work conducted by the University of Adelaide and Flinders University. Laboratory proof of concept has been successfully established whereby several lab-scale reactor prototypes have been developed and tested under simulated solar concentration. This testing has shown a hydrogen production and efficiency benefit from exposing certain photocatalyst materials to concentrated light and heat. A high-power solar simulator has recently been acquired from the United States to continue to advance the laboratory work in parallel with prototyping and pilot plant development.

The CSIRO Energy Centre in Newcastle was identified as being an ideal facility to conduct the first on-sun testing of Sparc Hydrogen's PWS reactor. The facility is home to Australia's largest solar thermal research hub. The hub comprises a 30-metre-high solar tower surrounded by a 4,000 square metre field of 451 locally manufactured custom designed mirrors (heliostats), as shown in Figure 1, and is capable of generating temperatures of up to 1,500 degrees Celsius. The hub provides a platform that allows Australian researchers to develop, test and commercialise technologies which incorporate concentrated solar.

Sparc Hydrogen has received funding of $28,688 through the CSIRO Kick-Start Program to contribute towards the costs of the prototype testing. Kick-Start is an initiative designed to support innovative Australian start-ups and small businesses in accessing CSIRO's research expertise and capabilities to foster growth and development. Sparc Hydrogen is grateful for the opportunity to work with the CSIRO on this world leading demonstration of PWS.

Testing of Sparc Hydrogen's prototype PWS reactor at the CSIRO Energy Centre in Newcastle commenced on 13 September 2023 and is pending completion. Two rounds of testing have been completed to date. The reactor and balance of plant has performed well at the planned upper limits of solar concentration and temperatures which is a key objective of the testing. Hydrogen gas production has been measured together with other data which will feed into pilot scale reactor development going forward. Sparc Hydrogen expects

to recommence and complete this phase of prototype testing in November subject to availability of the solar tower which is currently undergoing modification and upgrade works.

Key aims of the prototype testing remain as outlined in Sparc's update announcement (ASX Announcement 14 September 2023) on this activity, being to:

- Advance the TRL of Sparc Hydrogen's PWS reactor from 4 to 5 which is one level closer to a commercially deployable product.
- Provide valuable data and information for pilot plant reactor design.
- Enable benchmarking of laboratory testing under simulated solar conditions with real world results.
- Further establish Sparc Hydrogen as a world leading proponent of PWS technology and particularly as having a viable reactor to test new and better photocatalysts under development by leading research groups around the world.

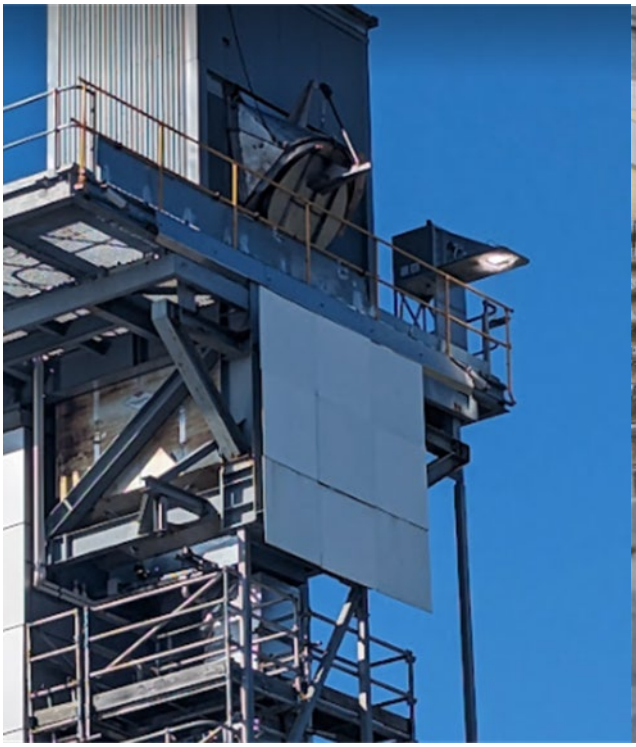


Figure 1: View up to PWS reactor (illuminated) from ground level

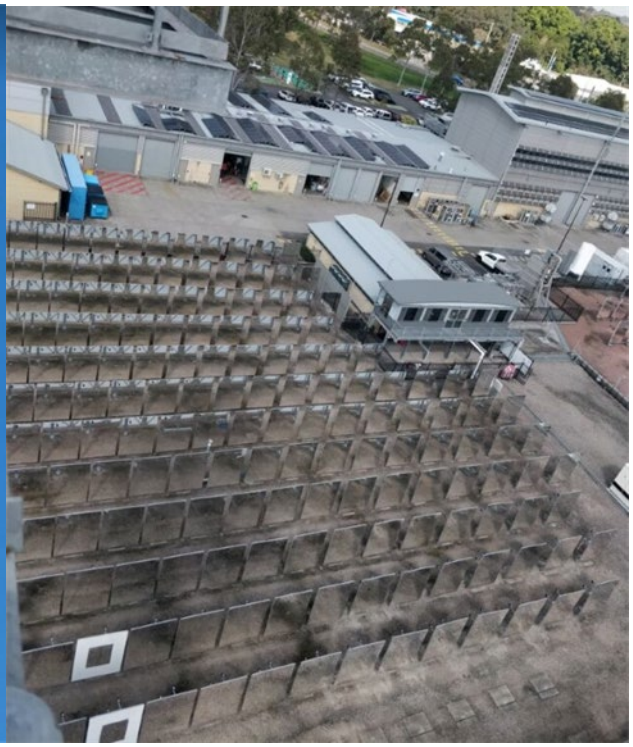


Figure 2: View down to heliostats from tower platform

In October, Sparc Technologies advised that the University of Adelaide, on behalf of Sparc Hydrogen, was awarded funding under Australia's Economic Accelerator (AEA) grant program. (ASX Release 19 October 2023)

The A$470,511 funding awarded to the University of Adelaide under the AEA Seed round will be used to continue and accelerate laboratory testing of Sparc Hydrogen's PWS reactor under simulated solar conditions, along with prototyping activities at the CSIRO Energy Centre in Newcastle, New South Wales. The University of Adelaide's funding application was selected from >200 proposals received in Tranche 1 of the AEA Seed round, reflecting the highly competitive nature of the round.

Additional activities during the quarter included commissioning of a high power solar simulator in the laboratories at the University of Adelaide. This simulator allows testing of laboratory scale prototypes under concentrated sunlight and heating. In addition, progress was made on pilot plant development activities and national and regional phase patent applications relating to the international PCT published in October 2022

were prepared. Sparc Hydrogen launched its website (www.sparchydrogen.com) with standalone branding in September 2023.

Graphene Additive Product ecosparc®

In August, Sparc Technologies provided a report on the real-world benefits of its flagship **ecosparc®** product. An LCA was conducted by Lifecycles[2] based upon Sparc's extensive data covering several years of ISO corrosion testing. Results indicate that steel assets coated with **ecosparc®**-enhanced high-performance coatings reduce the CO2 emissions associated with the maintenance of steel assets by 18 - 21%[3] when benchmarked against the same non-graphene-enhanced epoxy protective coatings. Furthermore, this also results in significant cost-saving of 19 – 23%[3] over the lifecycle of these same assets.

CO_2-e emission reductions and cost savings are the direct result of the improved resistance to corrosion of **ecosparc®** enhanced coatings leading to longer durations between maintenance events.

Key Results:

Table 1: Modelling was conducted on three different steel assets in areas of high corrosion

1.	**Wharf Pilings totalling 57,883 m² in a highly corrosive area.**
Results	
•	Annual Carbon Emission Savings with ecosparc: Over 15,000kg CO_2e per asset per year
•	Cost Savings: $15 million cost saving over the 50 year-life of the asset (from maintenance savings only)
2.	**Underground Steel Infrastructure with a total surface area of 3,376m²**
Results	
•	Annual Carbon Emission Savings with ecosparc: Over 500kg CO_2e per asset per year
•	Cost Savings: $1.9 million cost saving over the 50 year-life of an asset (from maintenance savings only)
3.	**Grain silos with a total surface area of 11,272m²**
Results	
•	Annual Carbon Emission Savings with ecosparc: Over 1,350 kg CO_2e per asset per year
•	Cost Savings: $2.6 million cost saving over 50 years of operation of the asset (from maintenance savings only)

The LCA clearly shows that steel asset owners will not only benefit from a tangible reduction in carbon emissions through enhanced coatings, but that this benefit will also come at a lower cost to the end-user. This underpins Sparc Technologies' model of creating shared value through its product offering. **ecosparc®** users will not only reduce their environmental impact through the coatings, but they can achieve this while reducing costs.

The LCA has been undertaken to international standards using Carbon Footprint (**CFP**) methodology by leading sustainability consultancy Lifecycles, based in Melbourne, Australia. CFP involves evaluating the complete environmental effects and advantages of products and processes from their inception to disposal. This entails analysing the greenhouse gas (**GHG**) emissions at every life cycle phase, aiming to prevent the transfer of impacts between stages and to offer insights for minimising GHG emissions over the entire product life cycle. The LCA report has been prepared by Lifecycles as an independent study and professional fees payable for the preparation of the report constitutes Lifecycles' only commercial interest in the study. The

[2] Life Cycle Strategies Pty. Ltd. is an independent company specialising in circular economy and sustainability reporting and training
[3] Bontinck, P, A (2023), Carbon footprint of ecosparc® graphene additive for protective coating applications, Lifecycles, Melbourne, Australia

payment of these fees has in no way influenced the outcomes of the study. Lifecycles and its principals do not hold securities in Sparc. At this point, this LCA is yet to be peer reviewed. Lifecycles consents to the publication of its study outcomes and the form and context in which they appear.

Sparc Technologies continues to further evaluation of a number of performance characteristics of graphene enhanced protective coatings through testing to global standards. Once completed, it is expected that the results will demonstrate the anti-corrosive properties of **ecosparc®** enhanced Protective Coatings will be significantly improved, resulting in further savings in cost and carbon emissions.

During August, the Anticorrosive Coating Composition Comprising Graphene patent progressed to the International PCT phase with a parallel filing commencing in the UK.

Multiple global and domestic coating companies continue to undertake product evaluation of **ecosparc®** in anti-corrosion coatings. Results from testing and qualification work with these companies are expected in Q4 2023/H1 2024. Further to this, Sparc has commenced a campaign targeting asset owners with a view to conducting field trials utilising graphene containing coatings on key infrastructure such as steel frames, tanks and steel structures close to the ocean. Infrastructure owners being targeted include government, defence, mining, and oil and gas companies.

Sparc is also currently engaged in product development and trials with global composites companies targeting inclusion of **ecosparc®** to improve performance outcomes. This leverages the excellent results in coatings where the inclusion of graphene is known to impart improved physical properties. Trials have commenced to overcome "pain points" where Graphene Based Additives may improve performance.

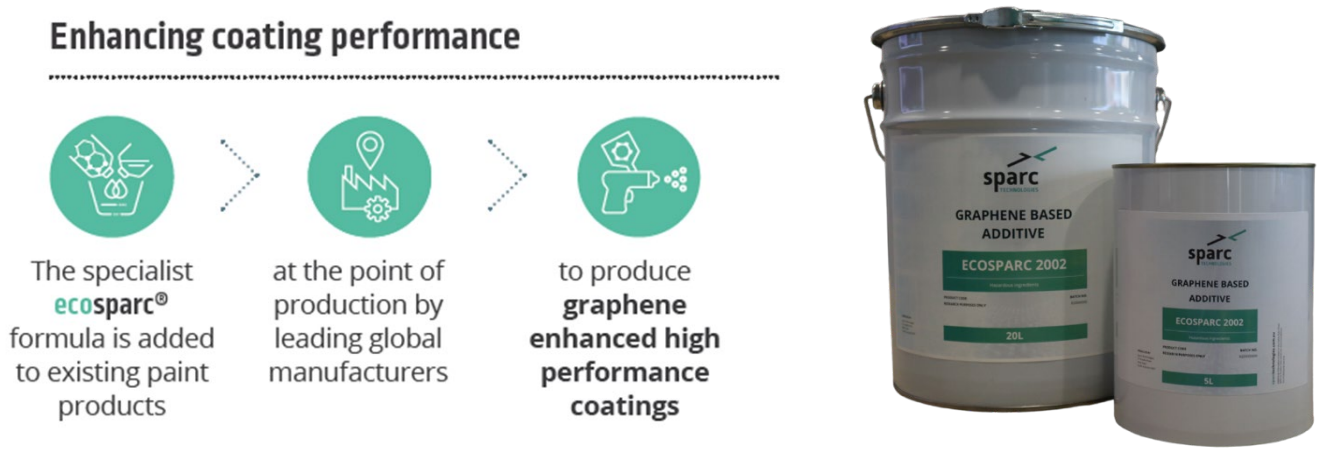


*Figure 3: **ecosparc®** is a performance additive for Marine and Protective Coatings*

A new website, www.ecosparc.com.au has been launched in support of the commercialisation of the ecosparc® product.

Sodium Ion Batteries

During the quarter, Sparc Technologies provided an update on its project with Queensland University of Technology (**QUT**) targeting development of sustainably sourced hard carbon anode material for sodium ion batteries (**SIBs**). (ASX Announcement 29 September 2023)

QUT delivered a second project milestone report which primarily describes the results of SIB half-cell battery testing and material characterisation for multiple samples of the chosen bio-waste material against a commercial benchmark. Electrochemical testing confirms consistently high reversible capacities and ongoing

improvements in initial coulombic efficiencies (**ICE**) for the bio-waste derived anodes using the new processing method under development. These results have been benchmarked against commercial hard carbon materials under the same testing procedure.

Improving the capacity of hard carbon anodes is considered to be important for increasing the overall energy density of sodium-ion batteries, which is a key limitation to widespread use in mobility applications such as electric vehicles currently. Given the continuation of positive capacity results as first reported in ASX Announcement 24 March 2023, Sparc is planning to accelerate its research and development in this area targeting further optimisation of process parameters and testing to demonstrate a broader suite of battery characteristics. Sparc is also in the process of completing a techno-economic analysis and is conducting testing of the hard carbon materials at an external laboratory.

Test results contained in the recent milestone report were based on the preparation of hard carbon anodes using three different samples of the same category of bio-waste feedstock material (sample A, B and C). The feedstock samples, which differed by location, the amount of upstream processing and ageing, were prepared and carbonised consistently using the method and conditions established in the initial process optimisation, as described in the March 2023 milestone report.

Characterisation of the resulting hard carbon materials using TGA, XRD, XPS, Raman, TEM, SEM, and BET has been performed and will provide a basis for comparison in ongoing testwork. Electrochemical performance was tested in half-cell configuration using galvanostatic charge/discharge at commercial mass loadings and low C-rates (0.05). Two alternative commercial electrolytes were trialled with improvements in ICE noted with Electrolyte #2. Five coin cells were tested for each trial to ensure the reproducibility of the measurements. Key electrochemical performance results are shown in Table 2, including a comparison against a commercial hard carbon material purchased from MTI Corporation which was tested under the same conditions. All testwork was conducted at QUT's laboratories in Brisbane.

Table 2: Hard carbon anode reversible capacity and initial coulombic efficiency results

	Electrolyte #1		Electrolyte #2	
HC Sample	**Average capacity[1] (mAh/g)**	**Average ICE[1] (%)**	**Average capacity[1] (mAh/g)**	**Average ICE[1] (%)**
A	477[2]	47	425	67
B	301	51	480	74
C	428	54	495	71
Commercial benchmark	292	73	340	76

[1] Reported based on the performance of the five best Na-ion half cells. ICE – initial coulombic efficiency.

[2] Results as contained in QUT's first milestone report.

Whilst there was some increased variability in the reversible capacity results for the bio-waste derived hard carbon materials as reflected by higher standard deviations, every trial yielded higher average capacity than the commercial benchmark, ranging from 3% up to a maximum of 63%. This is considered to be a significant result, particularly in the context of the improvement in ICE using Electrolyte #2.

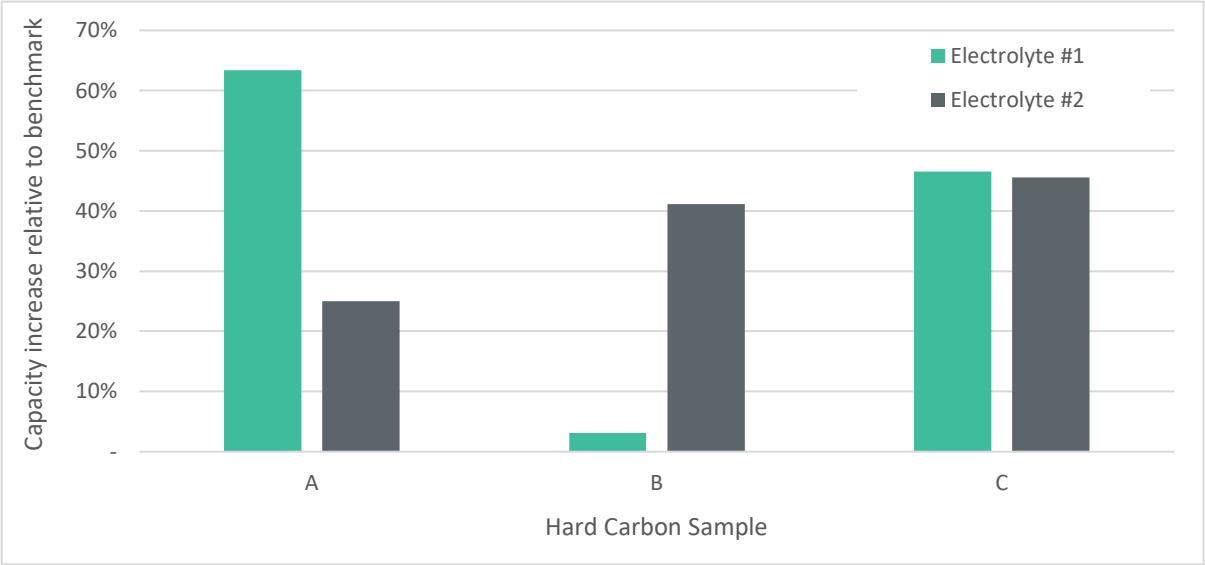


Figure 4: Reversible capacity increase (%) relative to commercial benchmark material

Also contained in QUT's milestone report were testing results incorporating surface and process modification techniques, although further work is required to draw meaningful conclusions. Initial proof of concept testing using the bio-waste derived anodes in a full cell format was also reported.

Given the positive results, Sparc is planning to extend its research and development related to this project via the following activities:

- Electrochemical testing of the bio-waste derived hard carbon materials at an external laboratory (underway);
- Developing a cost model / techno-economic analysis to ascertain the potential competitive advantages of the process (underway);
- Continue to optimise performance of half cells including trialling of methods to further improve ICE;
- Developing and testing full cells using commercially available cathode and electrolyte materials;
- Investigations into process scaling;
- Commencing engagement with industry players and potential customers.

Since September, work has progressed on a techno-economic analysis to demonstrate the potential competitive advantages of the processing method and validation testwork at an external laboratory is ongoing. Sparc recently purchased a report from a reputable market research provider, IDTechEx Ltd, which forecasts the SIB market to be valued at >US$11.6 billion in 2033.

Funding of these activities will be through Sparc's existing cash resources in addition to grant funding. In late October, Sparc advised that the Queensland University of Technology (QUT) had been awarded funding under Australia's Economic Accelerator (AEA) grant program to be applied towards QUT's sodium ion battery (SIB) materials project with Sparc. (ASX Announcement 30 October 2023)

The A$384,271 funding awarded to QUT under the AEA Seed round will be used to continue and accelerate laboratory testing of bio-waste derived hard carbon anode materials for SIBs produced using a faster, less energy intensive processing method. QUT and Sparc's funding application was selected from a large number of proposals received in Tranche 2 of the AEA Seed round, reflecting the highly competitive nature of the round and strength of the project application. The cash grant will support the project for 12 months and comes with a financial and in-kind commitment from Sparc which is within budget and will be funded from existing cash resources.

Corporate

Appointment of Mr. Adrien Wing as a Non-Executive Director

The Company announced the appointment of Mr. Adrien Wing as a Non-Executive Director (NED) on 29 September 2023. In addition to the NED role, Adrien will continue his role as Company Secretary. (ASX Announcement 2 October 2023)

Adrien Wing began his professional career practising in the audit and corporate advisory divisions within a boutique chartered accounting firm. With a career spanning over 25 years, Mr. Wing has been a prominent figure in the corporate landscape, focusing primarily on ASX small-cap companies. His expertise shines through in his leadership in IPO transactions and his pivotal role in orchestrating post-listing reverse takeovers and acquisitions across diverse industry sectors and global jurisdictions.

Mr Wing has a strong pedigree in the life sciences industry being the founder of Rhythm Biosciences Ltd (ASX:RHY) and bringing that entity to the ASX in 2017. His profound knowledge and invaluable experience make him a compelling candidate for appointment as a non-executive director.

Mr Wing currently serves as an officer/director on the following company boards: (i) Cleo Diagnostics Ltd (ASX: COV) - Non-Executive Chair; (ii) Red Sky Energy Ltd (ASX: ROG) – Director and Joint Company Secretary; (iii) New Age Exploration Ltd (ASX: NAE) – Director and Joint Company Secretary; and (iv) Osmond Resources Ltd (ASX: OSM) – Company Secretary.

Resignation of Ms. Stephanie Moroz as a Non-Executive Director

The Company also announced the resignation of Ms. Stephanie Moroz as a Non-Executive Director on 29 September 2023. Stephanie made a great contribution in her role as a Non-Executive Director. The Company would like to thank Stephanie for her professionalism and commitment and to wish her the very best in her future endeavours.

Appointment of Mr. Tim Conroy as a consultant for Renewable Energy

The company is pleased to advise it has engaged the services of Mr. Tim Conroy as a consultant in the renewable energy field.

Tim Conroy is well experienced in the energy transition, from research and development, through to project and business development and signing up offtake agreements. Recently he was the Business Development Manager for Infinite Green's Western Australian hydrogen projects. Prior to this he was the Head of New Energy Australia-New Zealand for Woodside Energy. From 2020 he was responsible for growing out the hydrogen ecosystems in Australia-New Zealand. In 2022 he won A$10 million from the Western Australian government to build a renewable hydrogen refueller in Perth and was involved in Woodside winning the Southern Green Hydrogen preferred partnership status in New Zealand.

Tim commenced at Woodside as an Exploration Petrophysicist and was a member of the original discovery and development team of Pluto and Xena gas fields. Previously he was the Chief of Petrophysics for Woodside's global operations, specialising in bringing artificial intelligence (AI) into the mainstream of Petrophysics. Tim has held several management roles such as Wheatstone Asset Manager and was Woodside Group's Production Planning and Market Liaison Manager.

Born in Adelaide, Australia, Tim graduated with first class Honours in Geology from the University of Adelaide. During his research he discovered and named three new marine species. He has over 25 years of experience in the energy industry. Prior to joining Woodside in 2004, Tim worked for Santos in Adelaide and Shell International in the Netherlands and Ireland. He has a strong track record in collaboration and innovation and is passionate about decarbonising the world's energy mix, which he sees as critical and abundant in opportunities.

Cash

As at 30 September 2023, the Company had a reported cash position of $1.99m.

Related Party Payments

In line with its obligations under ASX Listing Rule 5.3.5 Sparc Technologies Limited notes that the only payments to related parties of the Company, as advised in the Appendix 4C for the period ended 30 September 2023, pertain to payments to directors for reimbursement of arrears of Directors Fees, salary and superannuation in the amount of $79k.

-ENDS-

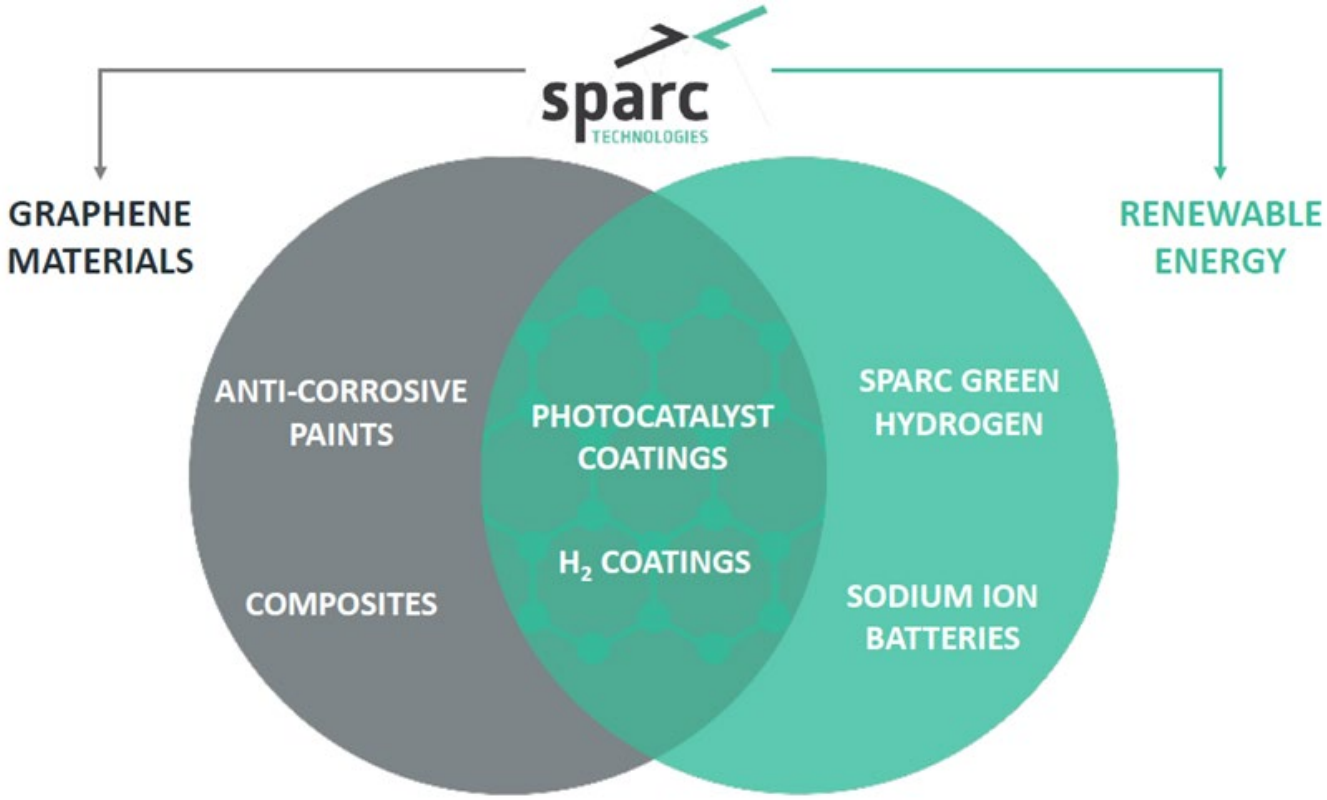
Authorised for release by: Stephen Hunt, Executive Chairman.

For more information:

Stephen Hunt
Executive Chairman
+61 402 956 205
Stephen.hunt@sparctechnologies.com.au

Mark Flynn
Investor Relations
+61 416 068 733
mark.flynn@sparctechnologies.com.au

About Sparc Technologies



Sparc Technologies Limited ('Sparc,' ASX: SPN) is an Australian company pioneering new technologies to disrupt and transform industry while seeking to deliver a more sustainable world. Sparc has established offices in Australia, Europe and North America and is focused on three core areas of technology development.

1. Sparc has spent over 4 years developing a **graphene based additive** product, **ecosparc®**, which has demonstrated up to 40% anti-corrosion improvement in commercially available epoxy coatings. Sparc recently commissioned a manufacturing facility to produce **ecosparc®** and is engaging with global paint companies and end users to advance commercial scale trials.

2. Sparc is a majority shareholder of **Sparc Hydrogen** which is a company pioneering the development of **photocatalytic water splitting** ('PWS') green hydrogen production technology. PWS is an alternative to producing green hydrogen via electrolysis, using only sunlight, water and a photocatalyst. Given lower infrastructure requirements and energy use, the process has the potential to deliver a cost and flexibility advantage over electrolysis.

3. Sparc is also developing **sodium ion battery technology** in partnership with Queensland University of Technology.

For more information please visit: sparctechnologies.com.au

Forward Looking Statements

Some information included in this release constitutes forward-looking statements. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by words such as the following: expects, plans, anticipates, forecasts, believes, intends, estimates, projects, assumes, potential and similar expressions. Forward-looking statements also include reference to events or conditions that will, would, may, could or should occur.

These forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable at the time they are made, are inherently subject to a variety of risks and uncertainties which could cause actual events or results to differ materially from those reflected in the forward-looking statements, including, without limitation the matters set out in this announcement.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Glossary of terms (relating to sodium ion batteries (SIBs) project)

Anode: In a sodium ion battery, sodium ions and electrons are stored in the anode as the device is charged, and released as it is discharged.

C-rate: A measure of how fast a cell delivers or receives energy. In simple terms a 1C rate is a current draw sufficient to fully charge or discharge a cell in 1 hour. A 4C rate would be the full charge or discharge in 15 minutes. The C rate is useful as it can be applied irrespective of the size of cell.

Cycling stability: The cycling stability or cycle life of a battery is the number of charging / discharging cycles the battery can complete before its capacity is reduced to a predetermined amount of its reversible capacity, for example to 80%.

Hard carbon anode: Carbon-based material with a largely disordered structure, commonly used as the anode in sodium ion batteries.

Initial coulombic efficiency: Coulombic efficiency, also called faradaic efficiency or current efficiency, is the percentage of electrons that can be removed from the battery after charging. Initial coulombic or first cycle efficiency is the percentage of charge that is removed after the first cycle. First cycle charging is commonly inefficient relative to subsequent cycles, and first cycle capacity is commonly excluded from calculations of reversible capacity.

Mass loading: The weight of the dried electrode slurry on the current collector over a unit area, typically in units of mg/cm^2.

Pyrolysis: Chemical process that involves the thermal decomposition of organic materials in the absence of oxygen.

Reversible (specific) capacity: Scientific term used to establish the energy storage capacity of the active material in a battery. Units are typically milliamp hours per gram (mAh/g). It allows researchers to describe direct measurement of active material performance without taking into account the weight of other battery components such as packaging, separators and current collectors. Reversible capacity typically refers to the capacity that remains after several cycles.

Sodium ion batteries: Type of rechargeable battery that uses sodium ions (Na+) as the charge carrier instead of lithium ions (Li+), which are used in conventional lithium-ion batteries. Sodium ion batteries are similar in structure and operation to lithium-ion batteries.

Appendix 4C

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

Name of entity	
Sparc Technologies Limited	
ABN	**Quarter ended ("current quarter")**
13 009 092 068	30 September 2023

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	0	0
1.2	Payments for		
	research and development	(218)	(218)
	product manufacturing and operating costs	(102)	(102)
	advertising and marketing	(80)	(80)
	leased assets	0	0
	staff costs	(345)	(345)
	administration and corporate costs	(235)	(235)
1.3	Dividends received (see note 3)	0	0
1.4	Interest received	14	14
1.5	Interest and other costs of finance paid	0	0
1.6	Income taxes paid	0	0
1.7	Government grants and tax incentives	0	0
1.8	Other (provide details if material)	0	0
1.9	**Net cash from / (used in) operating activities**	**(966)**	**(966)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	entities	0	0
	businesses	0	0
	property, plant and equipment	0	0
	investments	0	0
	intellectual property	0	0
	other non-current assets	0	0

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
2.2	Proceeds from disposal of:		
	entities	0	0
	businesses	0	0
	property, plant and equipment	0	0
	investments	0	0
	intellectual property	0	0
	other non-current assets	0	0
2.3	Cash flows from loans to other entities	0	0
2.4	Dividends received (see note 3)	0	0
2.5	Other (provide details if material)	0	0
2.6	**Net cash from / (used in) investing activities**	**0**	**0**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	0	0
3.2	Proceeds from issue of convertible debt securities	0	0
3.3	Proceeds from exercise of options	0	0
3.4	Transaction costs related to issues of equity securities or convertible debt securities	0	0
3.5	Proceeds from borrowings	0	0
3.6	Repayment of borrowings	0	0
3.7	Transaction costs related to loans and borrowings	0	0
3.8	Dividends paid	0	0
3.9	Other (provide details if material)	0	0
3.10	**Net cash from / (used in) financing activities**	**0**	**0**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	2,957	2,957
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(966)	(966)
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)		

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
4.5	Effect of movement in exchange rates on cash held		
4.6	**Cash and cash equivalents at end of period**	**1,991**	**1,991**

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	1,991	2,957
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)**	**1,991**	**2,957**

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	79
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.

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**	0	0
7.5	**Unused financing facilities available at quarter end**		0
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)	(966)
8.2	Cash and cash equivalents at quarter end (item 4.6)	1,991
8.3	Unused finance facilities available at quarter end (item 7.5)	0
8.4	Total available funding (item 8.2 + item 8.3)	1,991
8.5	**Estimated quarters of funding available (item 8.4 divided by item 8.1)**	2.06

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: .....31 October 2023.....

Authorised by: .....The Board.....

(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.