

Sparc Hydrogen Receives Australian Government Grant and Progresses Prototype Testing

HIGHLIGHTS

- Sparc Hydrogen awarded A\$470,511 under AEA grant program
- Funds will be used to continue and accelerate laboratory and on-sun prototype testing of Sparc Hydrogen's PWS reactor
- Two rounds of on-sun prototype testing have been completed at 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 this phase of prototype testing expected in November

Sparc Technologies Limited (ASX: SPN) (Sparc, Sparc Technologies or the Company) is pleased to advise that the University of Adelaide, on behalf of Sparc Hydrogen, has been awarded funding under Australia's Economic Accelerator (AEA) grant program.

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 photocatalytic water splitting (PWS) reactor under simulated solar conditions, along with prototyping activities at the CSIRO Energy Centre in Newcastle, New South Wales, which commenced in September ([ASX Announcement 14 September 2023](#)). 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.

Sparc Technologies Executive Chairman, Mr. Stephen Hunt commented:

"Receipt of grant funding for Sparc Hydrogen from the highly competitive AEA Seed round is very pleasing and reflects both the strength of the application and the game-changing potential of the photocatalytic water splitting technology under development.

This funding will enable Sparc Hydrogen to accelerate and build on laboratory-based testing and on-sun prototyping at the CSIRO. Sparc Hydrogen will also look at opportunities to participate in the subsequent phases of the AEA program, along with other funding programs to support the next stage of scale up as we progress towards commercialisation."

The AEA program will initially run over ten years from 2023 to 2032, supported by a A\$1.6bn investment from the Australian Government in the research commercialisation ecosystem. The program is part of the Australian Government's University Research Commercialisation Action Plan, and forms part of its efforts to supercharge commercialisation of Australia's world leading research in the university sector.



Proposals for Tranche 1 of the AEA Seed round, in which the University of Adelaide was an applicant on behalf of Sparc Hydrogen, opened in February 2023 for research projects with technology readiness levels (TRLs) of 3 - 5. The maximum amount of funding available was A\$500,000 per applicant, within an entire funding envelope of A\$5m for Tranche 1.

Update on Prototyping Testing

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 up to the date of this announcement. 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.

About Sparc Hydrogen

Sparc Hydrogen is a joint venture (Sparc Technologies 52%, The University of Adelaide 28% and Fortescue Future Industries 20%), developing next generation green hydrogen technology using a process known as photocatalytic water splitting (PWS). This process is an alternative to producing green hydrogen via electrolysis, using only sunlight, water and a photocatalyst. Sparc Hydrogen's patent pending solar reactor has the potential to improve the efficiency of PWS to obtain hydrogen from water using concentrated solar. Given lower infrastructure requirements and energy use, the 'Sparc Green Hydrogen' process has the potential to deliver a cost and flexibility advantage over electrolysis.

Find out more at: www.sparchydrogen.com

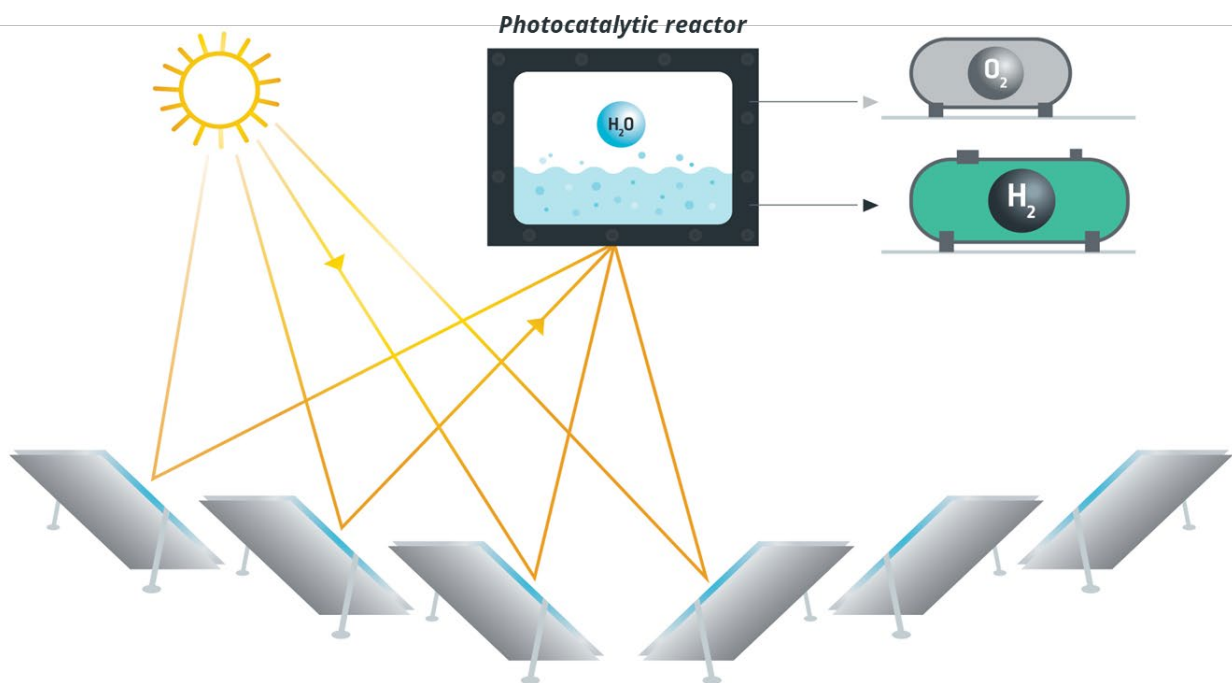


Figure 1: Sparc Green Hydrogen schematic demonstrating combination of concentrated solar and photocatalytic water splitting

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Authorised for release by: Stephen Hunt, Executive Chairman.

For more information please visit: sparctechnologies.com.au

Contacts:

Stephen Hunt

Executive Chairman

+61 402 956 205

Stephen.hunt@sparctechnologies.com.au

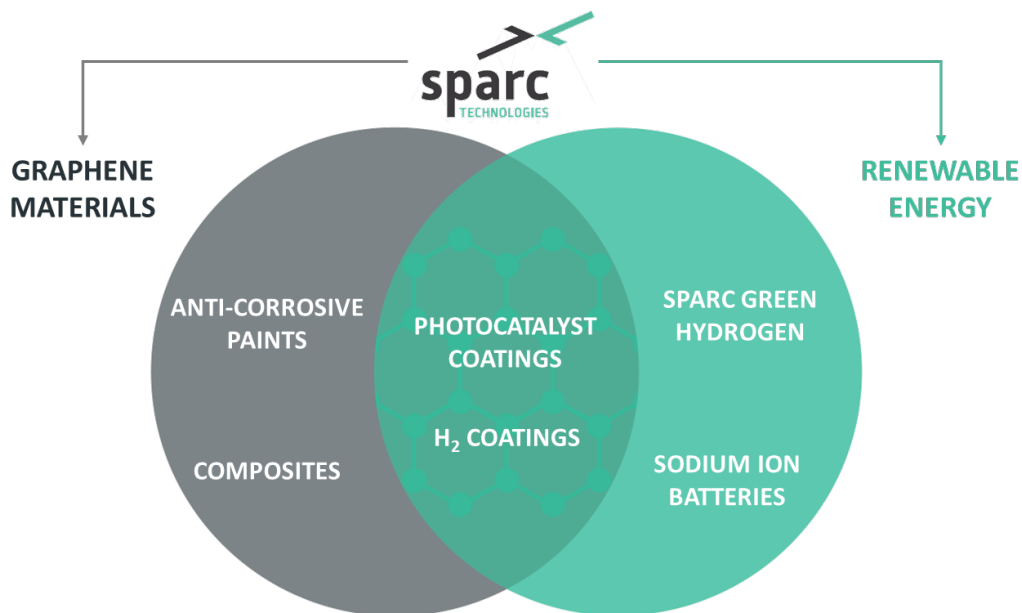
Mark Flynn

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.

