

## Sparc Hydrogen JV Project Advancement

### HIGHLIGHTS

- **Approval of ~A\$1.1m to be added to the budget for Stage 1 to further advance Sparc Hydrogen's photocatalytic water splitting process**
- **Increase in budget to be funded through R&D tax incentives**
- **Experienced project manager hired to lead on-sun prototyping and pilot development**
- **Second project milestone report delivered by the University of Adelaide**

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**Sparc Technologies Limited (ASX: SPN) (Sparc, Sparc Technologies or the Company)** is pleased to provide an update relating to Sparc Hydrogen which is a JV between the University of Adelaide, Fortescue Future Industries (FFI) and Sparc Technologies. Sparc Hydrogen is seeking to further develop and commercialise patent-pending photocatalytic water splitting technology with the aim of producing low-cost green hydrogen on a commercial scale (the Sparc Green Hydrogen process).

Sparc Hydrogen recently approved an ~A\$1.1m increase in funding for Stage 1 of the project, representing a ~50% increase in committed funding. The additional funds will be used to advance research and development activities and to accelerate on-sun demonstration of the technology. More specifically, approval has been given for the appointment of an experienced Project Manager, an increase in resources at the University of Adelaide, design and construction of an on-sun prototype reactor as a precursor to pilot scale design, and for additional working capital. The increase in funding is budgeted to be fully funded by R&D tax rebates, hence no increase in investment is required from the JV partners.

**Sparc Technologies Ltd. Executive Chairman, Stephen Hunt commented,**

*"The significant increase in funding for the project is another strong endorsement of Sparc Hydrogen's green production process and demonstrates the increasing maturity of the technology. We are excited about the acceleration of on-sun testing and with the appointment of an experienced project manager to lead development of this work as we move towards piloting. We continue to be very encouraged by the potential of this next generation green hydrogen technology."*

This increase in commitment to the project is the culmination of progress over the past six months, including:

- Delivery of the preliminary Techno Economic Assessment (TEA);
- Publication of an international patent application relating to the photocatalytic reactor technology;
- Initial scoping works conducted for on-sun testing at prototype and pilot scale; and
- Ongoing results of testwork at the University of Adelaide which were recently presented to the JV in a second research milestone report.



The additional funding will enable greater focus on testing the efficacy of the technology in real world conditions, in particular through an acceleration of on-sun prototyping as a precursor to pilot scale reactor design. The prototyping is expected to be undertaken at an existing concentrated solar field and would be the first demonstration of the technology outside of the laboratory. Sparc Hydrogen has engaged a consultant engineering firm to support this work which is targeted to be conducted in mid-2023. The results of the prototyping and further laboratory testing will feed into the development of the pilot plant which is ongoing.

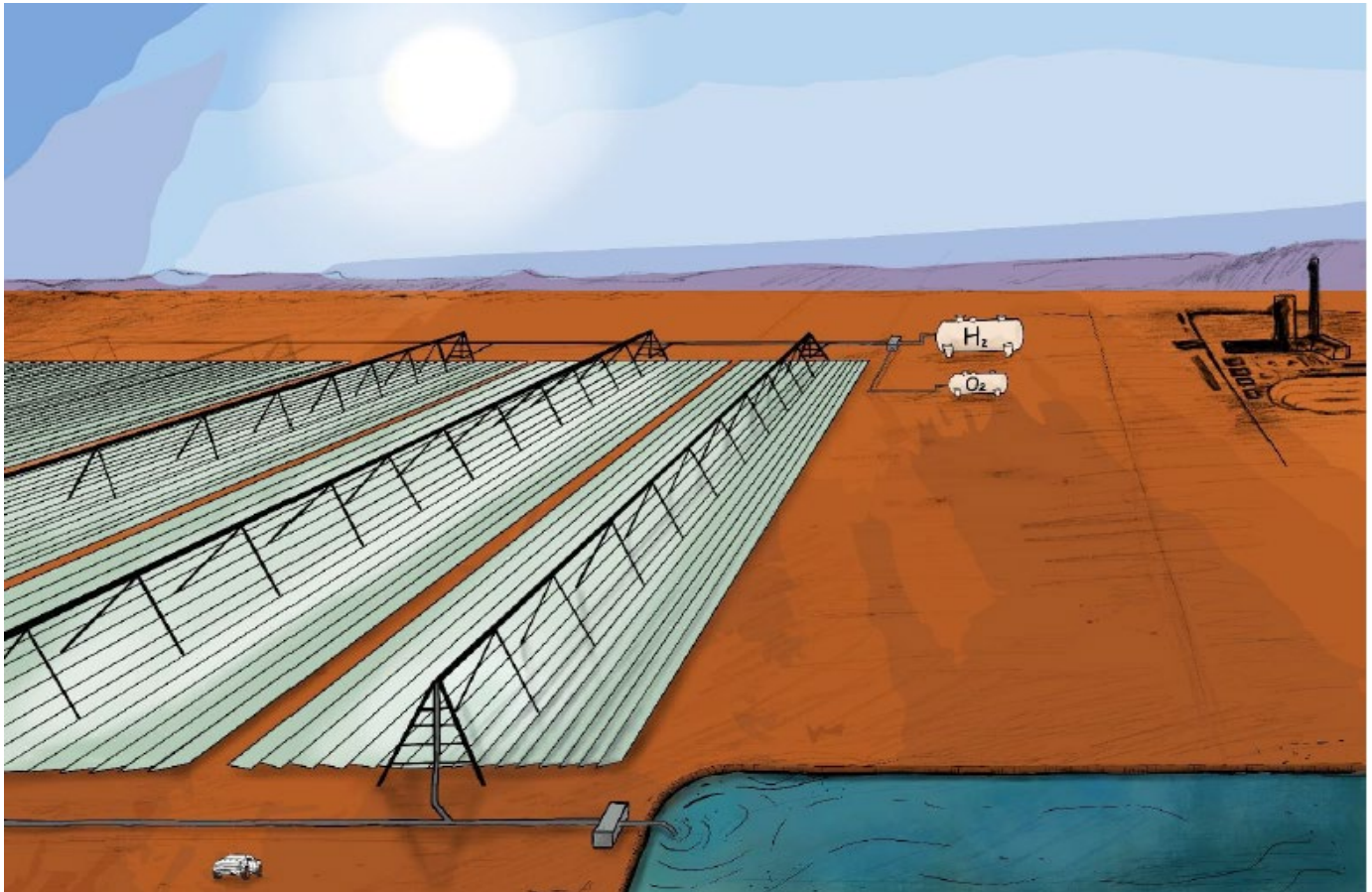


Figure 1: Concept drawing of the Sparc Green Hydrogen process incorporating photocatalysis and linear fresnel concentrators

Hydrogen has hired its first direct employee, Vinodhan (**Vinod**) Gopalan, in the role of Project Manager. Vinod has over 20 years' experience in the energy and power sector in engineering roles, most recently with Re.Group where he was primarily developing a waste-to-energy plant in NSW. Vinod's main role will be to lead development of the pilot plant and support on prototyping and research activities. He will be commencing at Sparc Hydrogen in late March and will be based in Adelaide.

### About Sparc Hydrogen

Sparc Hydrogen is 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 is demonstrated to improve the efficiency of PWS to separate hydrogen from water. Given lower infrastructure requirements, and energy use, if successful, the 'Sparc Green Hydrogen' process has the potential to deliver a cost competitive advantage over electrolysis driven by renewable energy.

-ENDS-



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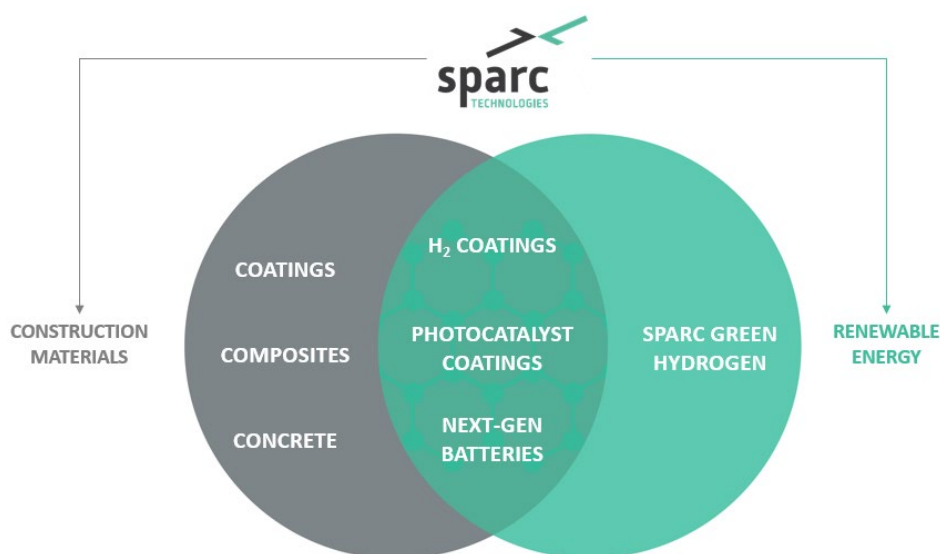
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**About Sparc Technologies**



Sparc Technologies Limited (ASX: SPN) is an Australian company pioneering new technologies to disrupt and transform industry while seeking to deliver a more sustainable world. Sparc Technologies has established offices in Europe and North America.

Graphene, a major focus for Sparc Technologies, is a 2-dimensional material made of carbon atoms arranged in a hexagonal lattice which creates unique and powerful properties that can be imparted on products to improve performance. Sparc Technologies is commercialising graphene in a number of applications including Graphene Based Additives for the Protective and Marine Coatings market along with applications in the renewable energy and construction materials sectors.

Sparc Technologies, via its majority interest in Sparc Hydrogen, is also focussed on developing photocatalytic green hydrogen technology that does not require solar and/or wind farms, nor electrolyzers as with conventional green hydrogen processes.

