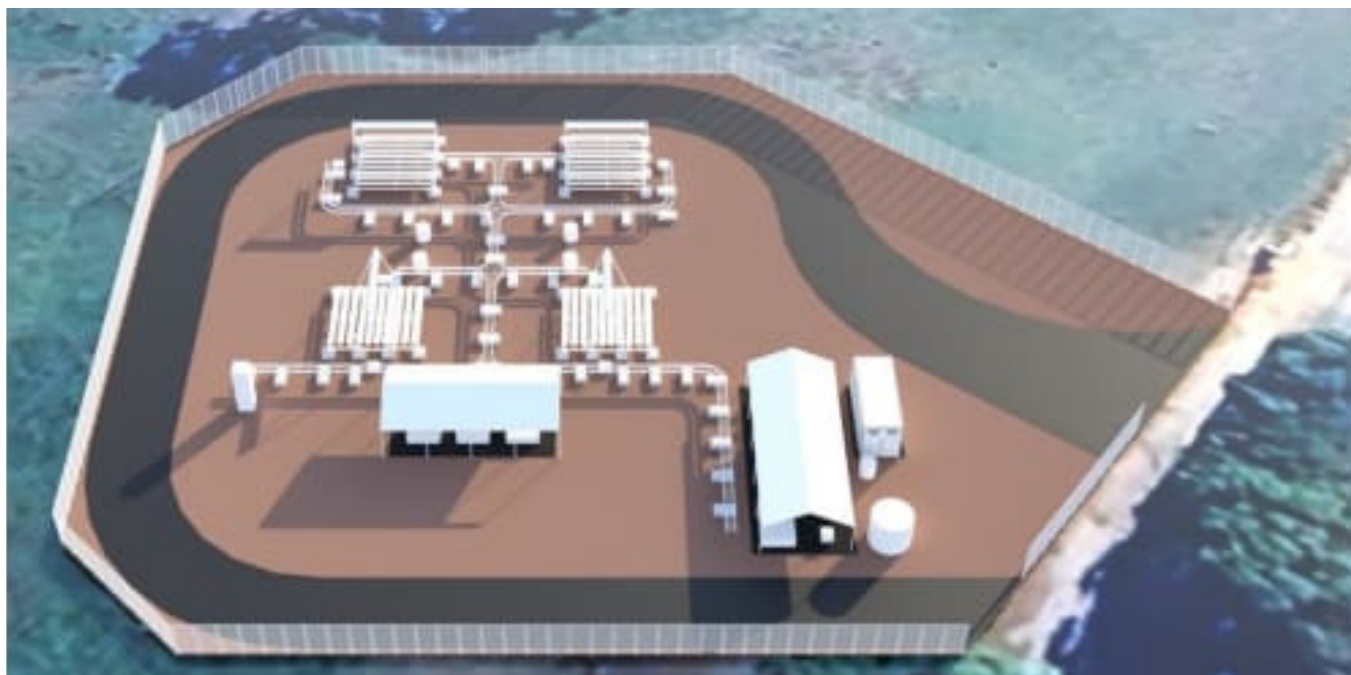


Sparc Hydrogen: A New Era for Ultra Green Hydrogen Production



3D Pilot Plant Model Based on Pre-FEED Study

****Adelaide, Australia – August 2024**** – In response to recent news regarding the challenges faced by green hydrogen projects in Australia, Sparc Technologies Limited (ASX: SPN) wants to emphasise that Sparc Hydrogen's technology sets it apart from conventional approaches.

Crucially, Sparc does not rely on renewable energy sources such as solar or wind farms to produce hydrogen. This addresses a fundamental issue in the nascent green hydrogen industry—the cost of renewable power.

Sparc Hydrogen's process does not encounter this obstacle. Our pioneering technology employs a photocatalyst material, sunlight, and water to produce 'ultra-green' hydrogen, which can serve as a clean fuel or feedstock to decarbonise hard-to-abate industries.

****Key Advantages of Sparc Hydrogen:****

1. **Innovative Technology:** Sparc Hydrogen's groundbreaking production technology severs the link between power prices and green hydrogen costs. This is a game-changer, especially considering the prevailing challenges faced by electrolysis projects, such as soaring electricity prices, scalability issues, and grid constraints. By overcoming these issues, our cutting-edge technology has the potential to produce green hydrogen at a significantly lower cost than electrolysis.

2. **Flexibility and Scalability:** Photocatalytic water splitting (PWS) eliminates the need for expensive electrolyzers, extensive transmission lines, and large-scale renewable energy installations. Our approach uses modular and scalable mirror infrastructure suitable for remote and off-grid applications.

3. **Sustainable Production:** PWS provides the opportunity to produce hydrogen using less land, infrastructure and critical resources than conventional green hydrogen via electrolysis delivering a lower environmental footprint. It also avoids the social licence issues associated with new transmission lines.

4. **Strong Partnerships:** Sparc Hydrogen is a joint venture between Sparc Technologies, Fortescue Limited and the University of Adelaide. Fortescue is a leading global proponent of green hydrogen and related technology solutions and remains firmly committed to Sparc Hydrogen, providing continued support and collaboration. The University of Adelaide is a global leader in developing renewable technologies and provides the JV with access to world-class research facilities.

5. **Development Progress:** Sparc Hydrogen has successfully completed prototyping of its reactor technology and is underway developing a pilot plant at the University of Adelaide's Roseworthy Campus. This pilot plant facility, the first of its kind globally, will demonstrate the viability of our photocatalytic water splitting technology.

As conventional green hydrogen projects face significant challenges, and the requirement to decarbonise hard-to-abate industries is only increasing, now is the time to invest in next-generation technologies like Sparc Hydrogen's 'ultra-green' technology.

Our unique approach can help meet the Australian Government's target of producing hydrogen at below A\$2/kg, making green hydrogen a competitive and viable clean energy source.

With the construction of our pilot plant due to commence in Q4 2024, we are on the leading edge of scaling photocatalytic water splitting as a low-cost, flexible alternative to electrolysis, which could unlock the potential of green hydrogen globally.

To find out more about about Sparc Hydrogen's photocatalysis project, listen to Nick O'Loughlin, Managing Director of Sparc Technologies on this episode of ASX Briefs' Podcast: [SPARC TECHNOLOGIES LIMITED \(SPN\) - Revolutionizing Green Hydrogen Production: Managing Director Nick O'Loughlin on Game-Changing Photocatalysis Technology and Strategic Collaborations.](#)

Sparc Technologies Limited is an Australian company pioneering new technologies to disrupt and transform industry while seeking to deliver a more sustainable world. Beyond green hydrogen, Sparc Technologies is developing advanced graphene-based additives for coatings and composites and sustainable sodium-ion battery anode technology. Visit Sparc Technologies (<https://www.sparctechnologies.com.au>) and Sparc Hydrogen (<https://www.sparchydrogen.com>) for more details.

Key Advantages of Sparc Hydrogen

- 1. Innovative Technology**
- 2. Flexibility and Scalability**
- 3. Sustainable Production**
- 4. Strong Partnerships**
- 5. Development Progress**

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