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Fortescue Future Industries-backed Sparc Technologies progressing green hydrogen pilot plans

Andrew Forrest-backed Sparc Technologies is progressing plans for a green hydrogen pilot by mid-year to test its potentially game-changing technology.


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'Green ideology': Labor and Andrew Forrest putting cheap, reliable energy 'at risk'

Nationals Senate Leader Bridget McKenzie has criticised Andrew Forrest for "espousing his green ideology", which, along with the Labor Party's policies, has put cheap, reliable energy "at risk".

Green hydrogen hopeful Sparc Technologies and its joint venture partners, including Andrew Forrest's Fortescue Future Industries, are progressing plans to begin construction of a multimillion-dollar pilot plant in the coming months.

The project would be a major test of its potentially groundbreaking technology.

ASX-listed Sparc's hydrogen subsidiary aims to commercialise its photocatalytic water splitting technology – spun out of Adelaide and Flinders universities – which can convert water into hydrogen and oxygen using only the sun's radiation and a photocatalyst.

Unlike traditional green hydrogen methods, the process does not require renewable energy from wind farms, or solar panels, or an electrolyser, and therefore it is hoped the technology will provide a low-cost alternative in the emerging hydrogen market.

Following recent prototyping of Sparc's reactor at the CSIRO Energy Centre in Newcastle, it now wants to build a pilot plant at a site in Adelaide's north where further testing will be conducted.

The joint venture partners have committed funding for the project, which will go to the board for formal approval in the middle of the year.

Former investment banker Nick O'Loughlin, who took over as managing director in January, said it was an important moment for the "potentially game-changing technology".

"We did some prototyping up in Newcastle, and we're looking to build a pilot plant for that technology up in the north of Adelaide; hoping to start construction on that around mid year, so that would be the first facility of this type, globally, that we're aware of," he said.

"That is really quite an exciting prospect. As part of the joint venture, which was structured a couple of years ago, the partners put in a bit over \$2m up front, and now it's a \$2.5m investment in the middle of this year between us and Fortescue.

"It's about a six-month build so hopefully by late this year, or more likely early next year, we'll have something on the ground which the researchers will then be able to access, we'll be able to show people around.

"Moving that from a technology into something that's pre-commercial is the step after the pilot, and I think that excites a lot of people. A lot of people who we speak to, particularly when we speak to people in Europe and tell them you don't need an electrolyser, it's the holy grail; it's a big bang technology I would say."

Sparc Technologies backdoor-listed into Acacia Coal in late 2020, raising \$4m at 20c per share to be used to commercialise its graphene technology, as the company was originally focused on graphene production for marine and protective coatings.

That product, known as Ecosparc, is still progressing, and it recently announced upcoming trials with the South Australian government ahead of planned commercialisation.

Sparc has conducted more than four years of research and development on Ecosparc, a graphene-based additive which is added to paint and other conventional coatings to improve the corrosion performance of frames, tanks and other steel products.

The field trials, with the SA Department for Infrastructure and Transport, will take place on Adelaide's West Beach bridge and the Streaky Bay jetty on the Eyre Peninsula.

Meanwhile, the company's green hydrogen subsidiary, Sparc Hydrogen, has attracted interest, and investment from Andrew Forrest's green energy business, which paid an initial \$1.8m for a 20 per cent stake in 2022.

The University of Adelaide is the third member of the joint venture, which is progressing plans for its "ultra-green hydrogen" technology.

Stephen Hunt, who recently transitioned from executive to non-executive chairman, said that while the technology had great promise, investor appetite for emerging technologies continued to be cautious.

"We think the Australian market is not as well tuned in, if you like, to some of these nascent technologies as certainly the US and Europe," he said.

"The current market is pretty dismal for the small micro-caps, but I think we've weathered the storm reasonably well.

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“One thing that’s a huge support to us is the government R&D tax rebate. We just recently received \$1.4m back in a refund.

“If that could be increased in any way that would certainly drive more R&D back into universities and small companies like us, which would then probably attract more investor dollars as well.”

