



## AHRN Newsletter June 2022

**Mission** The Australian Hydrogen Research Network (AHRN) is the community of researchers and interested stakeholders supporting the emerging hydrogen industry. We foster excellence in hydrogen-related research through an ongoing program of seminars and knowledge-sharing activities. By providing thought leadership, advocacy, and research tools, the AHRN offers its members domestic networking opportunities as well as access to international collaborations.

A flyer with more information on the AHRN can be downloaded [here](#). ***Please share this with your colleagues to encourage them to join our network.***

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**Online AHRN Seminar on Hydrogen in South Australia  
Thursday 30th June at 1.00 pm AEST**

South Australia is a leader in the hydrogen sector, spanning everything from fundamental-level research through to already delivering renewable hydrogen to people's homes. This webinar will present a snapshot of the activities, showcasing how researchers, industry and government can work together to make the hydrogen future a reality. Confirmed speakers:

- Prof Christian Doonan, University of Adelaide:  
Research activities to enable the scaling of green hydrogen
- Briony O'Shea, Principal Consultant/Hydrogen Industry Manager, GPA Engineering:  
Industry perspective of hydrogen projects in South Australia
- Richard Day, Director, Low Carbon Unit, Department for Energy and Mining, Government of South Australia:  
South Australia's clean energy transformation and hydrogen industry development

All those who have registered with the AHRN will soon receive an invitation to attend this seminar. If you are not yet on our database and wish to attend, please send your details to the AHRN admin via [Hydrogen\\_Mission@csiro.au](mailto:Hydrogen_Mission@csiro.au)

Presentations from the seminar on Hydrogen and the Australian Gas Industry 6<sup>th</sup> June are now available for download here:

[Dr Denis van Puyvelde, Gas Vision 2050, Pathway to net zero](#)

[Tony Williams, Hydrogen Impact to the Australian Gas Pipeline Industry](#)

[Alastair Wardrope, Injecting Hydrogen into the Natural Gas Network](#)

The next seminar in the 2022 series in July will focus on the smart research networking tools developed under the HyResearch online portal.

Please contact us if you have ideas for topics for future seminars, workshops and other events.

## **First workshop and networking event for the AHRN**

We are pleased to announce that the first in-person workshop and networking event for the AHRN will be take place at Griffith University, Nathan Campus, Brisbane on 6<sup>th</sup>

September 2022. Join us for a stimulating day of workshops and lab tours, including a visit to the Sir Samuel Griffith Centre. If you are a Queensland researcher, we invite you to share your research work with others, and benefit from the collaboration and connectivity that the AHRN can provide. We are also seeking to make the event accessible online for those not able to travel to Queensland.

The Brisbane workshop is being held in collaboration with the Hydrogen Connect Summit <https://hydrogenconnect.com.au/>. Any researchers attending the AHRN workshop will be entitled to an academic discount to register for the Hydrogen Connect Summit. More information will be provided in the next newsletter.

## **Australian Hydrogen Research Conference 2023**

We are pleased to confirm that the AHRN research conference will be held at the Canberra from Wednesday 6<sup>th</sup> to Friday 8<sup>th</sup> of February 2023.

Planning of the first Australian Hydrogen Research Conference for 6<sup>th</sup> to 8<sup>th</sup> February 2022 is well underway. A flyer/date saver will be issued in the next few days and should appear on our LinkedIn page and elsewhere. A call for abstracts will be open in July and we shall shortly be issuing a sponsorship prospectus for the conference. If you know of any companies or individuals that would like to offer support, please contact the conference chair Kenneth Baldwin [Kenneth.baldwin@anu.edu.au](mailto:Kenneth.baldwin@anu.edu.au) deputy chair Andrew Dicks [adicks@ah2rn.org.au](mailto:adicks@ah2rn.org.au).

## **International collaboration program**

### **Expressions of interest for overseas delegations**

A peer review of over 80 expressions of interest (EOI) for international for the delegations [DISER International Hydrogen Research Collaboration Program has been](#) finalised with up to 35 Australian researchers to visit at least 5 countries. These trips serve as a prelude to the fellowship program where approximately 40 young to mid-career researchers take on research partnerships set up by the delegations. The focus now is to complete delegations to Germany, France, UK, USA and Japan and initiate the fellowship EOI by the end of the year. The aim is for Australia to develop stronger research connections, collaboration pathways, knowledge sharing and international relations between Australia's research institutions and the world's leading international hydrogen research organisations.

If you have any questions about the program, please contact the Program Manager [Dan O'Sullivan](#).

## Scaling Green Hydrogen CRC

Stage 1, Round 24 of the [Department of Industry, Science, Energy and Resources'](#) Cooperative Research Centres programme is expected to open in late June or early July and close in late August or early September. A CRC bid is being led by the University of Adelaide and the project team are inviting potential industry partners to join a series of virtual workshops in the first two weeks of July. To contribute to and benefit from the workshops, please register via this link:

<https://www.eventbrite.com.au/e/scaling-green-hydrogen-crc-research-program-workshops-for-industry-tickets-367238749987>

## Other Australian News

**PhD scholarships are available at UNSW** in the areas of electrosynthesis of [ammonia](#), [fuel cells](#) and [CO<sub>2</sub> electrodeduction](#). For more information check the descriptions contact Dr Quentin Meyer

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W: <https://www.chemistry.unsw.edu.au/our-research/our-research-groups/zhao-group>

**BP acquires key 40% stake in Australian green hydrogen export project.** Announced on 15<sup>th</sup> June, BP has taken a 40% ownership of the Asian Renewable Energy Hub which aims to export hydrogen or ammonia from WA. This is a significant investment by an established energy company in hydrogen export from Australia.

**HyPSA to expand its operations.** Since May 2021, Hydrogen Park South Australia (HyP SA) has supplied up to 5% hydrogen through the AGIG local natural gas distribution network to more than 700 homes in the Adelaide suburb of Mitchell AGIG now has ambitions to deliver at least 10% renewable gas across its distribution networks by 2030, and has a target of 100% renewable gas conversion by 2040 as a stretch, and by no later than 2050.

**Lion Energy commences FEED for first HRS** Wasco Australia has been appointed by Lion Energy (ASX:LIO) to carry out the FEED for its first commercial hydrogen production and refuelling station. The Design is expected to be completed by August 22 for a project completion by early 2023.

**Rinnai commences trials in Australia of domestic hydrogen water heater** Claimed to be a world-first 100% hydrogen burner for small-scale applications, Rinnai is to trial its latest technology in demonstration projects in Australia prior to commercialisation.

## International News

### **French supermajor TotalEnergies takes 25% stake in Adani New Industries as partners set sights on massive clean fuels production for India.**

The French oil giant has agreed to buy a 25% stake in Adani New Industries (ANI), part of the tycoon's Adani Group conglomerate, which plans to spend more than \$50bn in the sector over 10 years and build capacity to produce a million tonnes of green H<sub>2</sub> annually by 2030, said a statement.

Its first project will be a 2GW electrolyser powered by 4GW of wind and solar at a cost of \$5bn to produce 1.3 million tonnes annually of urea for the Indian market, easing its current reliance on imports.

The plant will be the first move into large-scale renewable hydrogen production and associated green fuels, including fertilisers and methanol for domestic use and export, said the partners, who will both use ANI as the exclusive focus of their Indian green H<sub>2</sub> commercialisation plans.

**Malaysia plans to export hydrogen.** The Malaysian state of Sarawak has announced plans to export the bulk of green hydrogen produced from a plant in the Petrochemical Hub in Tanjung Kidurong, Bintulu, to South Korea.

Once operational, the plant will produce annually 630,000 tonnes of green ammonia, 600,000 tonnes of blue ammonia and 220,000 tonnes of green hydrogen, of which 7,000 tonnes will be for domestic use and the rest exported to South Korea, said Sarawak Premier Datuk Patinggi Abang Johari Tun Openg.

South Korean companies Samsung Engineering Co Ltd, Posco and Lotte Chemical are partnering with Sarawak State Economic Development Corp (SEDC) to develop the hydrogen plant, dubbed H2biscus project. The hydrogen plant will be the first of its kind in Malaysia.

**Sweden's Hybrit collaboration opens pilot underground hydrogen storage** A first-of-its-kind underground storage facility for green hydrogen — a vital component to produce zero-emission steel at commercial scales — has been inaugurated in Sweden.

Green steel consortium Hybrit (Hydrogen Breakthrough Ironmaking Technology) — a pioneering collaboration between Swedish utility Vattenfall, mining group LKAB and steel producer SSAB — has opened its new pilot facility in Luleå, northern Sweden, marking the first time a lined rock cavern (LRC) has been used for subterranean H<sub>2</sub> storage.

## **Australian Hydrogen Events 2022/23**

- 23 June, Renewable Hydrogen Offtake Forum, The Intercontinental, Melbourne
- 25-26 July, Connecting Green Hydrogen, APAC 2022, Conference and Exhibition Centre, Melbourne
- 8-9 September, H2Q Hydrogen Connect Summit, Brisbane Convention and Exhibition Centre
- 26-27 October, All Energy Australia 2022, Melbourne Conference and Exhibition Centre
- 30 Oct-4 November, 17th International Symposium on Metal-Hydrogen Systems, Pan Pacific Hotel, Perth WA
- 6-8 February 2023, The first Australian Hydrogen Research Conference,

If you have news items that you would like to share with the Australian Hydrogen Research Network, please send them to [adicks@ah2rn.org.au](mailto:adicks@ah2rn.org.au)