

AHRN



AHRN Newsletter July 2023

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.

On 20th July 2023 the AHRN was incorporated as the Australian Hydrogen Research Network Ltd. a not-for-profit company limited by guarantee.

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Incorporation

After many months of preparation, the AHRN was formally incorporated as a not-for-profit company (Australian Hydrogen Research Network, ACN/BCN on 20th July 2023. We are grateful for all the input from our strategy team and the lawyers at Hamilton Locke for preparing a constitution for the company and arranging incorporation with ASIC. The initial board of directors is:

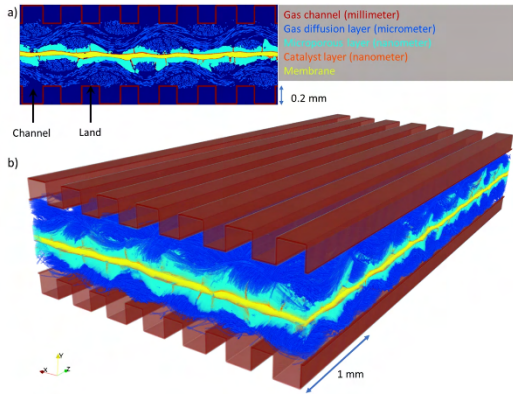
Dr Andrew Dicks, Consultant
Dr Patrick Hartley, CSIRO
Tony Williams, GPA Engineering
Jeffrey NG, Melbourne University
A/Prof Fiona Beck, ANU
Dr Jessica Alice Allen, Newcastle University
Prof Kenneth Baldwin, ANU

We are working with Strategenics to establish our own website and IT systems for the benefit of the AHRN, working towards an in-person launch of the new network in the coming weeks.

Next Research Seminar – 9th August 2023 2pm AEST

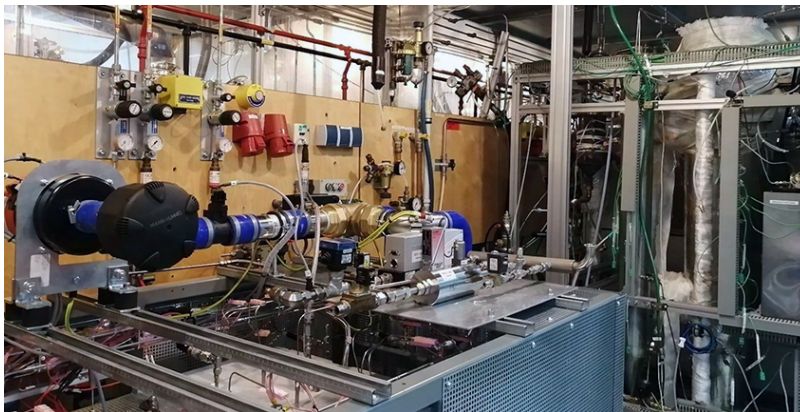
Fuel cells – research and practice

Dr Quentin Meyer, Leader of fuel cell research group, UNSW - “How to make hydrogen fuel cells cheaper and more efficient”



Generated PEM fuel cell domain used in modelling study at UNSW.

Dr Andrew Dicks, Fuel Cell Consultant – “Recent progress in the development of high temperature fuel cells for power and mobility”



NOW GmbH supported solid oxide fuel cells are being tested for the production of on-board power for ships operating at sea and at berth in ports.

Dr Joe Varga – Chief Scientific Officer Energys “ Commercial fuel systems – the experience of Energys”



Energys MW-class fuel cell systems supplied to Saudi Arabia

Future seminars

September (TBC) – Dr Robert Judd, Technical Director Hydrogen and Low Carbon Gas, APAC, DNV, Secretary General GERG “International Hydrogen Roadmaps”

October 11th – Allison Britt, Director Mineral Resources Advice and Promotion, Geoscience Australia “Critical Minerals for the Hydrogen Industry”

November – In-person event in Newcastle.

AHRN working groups

It has been proposed to set up some working groups to help in the planning of the AHRN over the next 12 months, including preparing for the next Australian Hydrogen Research Conference in 2024. Using the same nomenclature of the Research Focus Areas of Hyresearch, we are looking to establish groups in production, storage, distribution and supply, cross cutting research and utilisation, with a further group focused on international outreach and collaboration. The working groups will be tasked with activities such as identifying the key priorities for projects within these areas, bringing together the key researchers and specialists, mentoring new researchers in their fields and exploring funding opportunities for collaborative research projects. The working groups will report to the AHRN board directly and will therefore have a big influence on the future of the network.

Please consider joining one of the working groups, which we expect will meet monthly. Let your colleagues know about groups and especially encourage young researchers in hydrogen related projects to take part to help develop their own networks and careers.

Review of the National Hydrogen Strategy

Australia’s first [National Hydrogen Strategy](#) contained 57 actions and principles outlining the initial steps Australia could take to develop a large scale hydrogen industry.

Australia has the foundations to be a global hydrogen leader, and there is a need to consider updated or additional actions to ensure we reach our potential. As suggested by Dr Alan Finkel at our inaugural AHRC in February, a revised strategy is now being developed.

The revised National Hydrogen Strategy will build upon the 2019 Strategy. It will focus on the role hydrogen technology needs to play for Australia to meet its commitments to achieve net zero emissions by 2050, and to reduce greenhouse gas emissions by 43% below 2005 levels by 2030.

Stakeholders are invited to provide submissions to the [National Hydrogen Strategy Review consultation](#) process via the Have your say portal by 18 August 2023. The AHRN, being a key stakeholder will assemble a team with terms of engagement by the beginning of August to provide a response to this strategy review. If you are interested in taking part please contact us at adicks@ah2rn.org.au.

The Australian Government has also announced it will invest \$2.0 billion in a new Hydrogen Headstart program, providing revenue support for large-scale renewable hydrogen projects through competitive hydrogen production contracts. Visit [Hydrogen Headstart program consultation](#) to learn more and have your say.

Hydrogen Society of Australia (HSA) Webinar Series

The Hydrogen Society of Australia has launched a series of seminars focused on industry/academic collaboration with the AHRN featuring in a seminar later this year. Details can be found on the HAS website [here](#).

Hydrogen Engineering Area of Practice

In February this year the Australian Institute of Energy and Engineers Australia presented a hydrogen technical series in Melbourne. Following this successful venture, more series are planned for other states with the lead taken by Perth, Adelaide and Sydney. A further outcome of the series is an initiative taken by Engineers Australia (EA) to develop a Hydrogen Engineering Area of Practice for professional engineers. Most people are familiar with five engineering areas of practice – chemical, civil, electrical, mechanical and structural engineering. Today there are 27 areas of practice within EA and they're constantly evolving. Recognising the importance of engineering within the developing hydrogen industry, Engineers Australia have established a Hydrogen Engineering Working Group. This work is tasked with establishing the Area of Practice and has set up two sub-groups focusing on competency training and developing business cases. All involved in the hydrogen industry can be involved (a qualification in engineering is not essential), and anyone interested should contact Dr LING Chen Hoe, Engineers Australia chling@engineersaustralia.org.au.

Water electrolysers and fuel cell systems explained – 17th August online

May will be aware that Andrew Dicks has given several in-company and online training workshops over the past few years to educate those new to the hydrogen industry. Whilst it is hoped many researchers will be fully conversant with the operating principles of the technologies involved, there are clearly many people who are not, as was demonstrated by questions posed to Andrew in recent hydrogen industry meetings. As a result he will present a short workshop on “all you really need to know about fuel cells and electrolysers”. Readers of this newsletter can attend the workshop for a much reduced fee by registering online at [Eventbrite](#) with the discount code AHRN23.

Other Australian News

Scaling Green Hydrogen Cooperative Research Centre

The Scaling Green Hydrogen CRC has progressed to stage two of the funding selection process. The Federal Government is expected to announce the outcome of the CRC bids in December 2023.

Australia commits to build \$34 million renewable hydrogen plant in Victoria

WA government prepares to legislate 2050 net zero carbon emissions target

The WA government has announced plans to enshrine its commitment to net zero carbon emissions by 2050 in law, but will not set targets to get there until at least the end of the year. The McGowan government had [already committed to reducing public sector emissions by 80 per cent by 2030 compared to 2020 levels](#), and to become net zero by 2050, but these new goals will apply to the entire economy.

Future Hydrogen Events

25-26 July Connecting Green Hydrogen APAC 2023 – Melbourne Convention and Exhibition Centre <https://apac.gh2events.com/agenda>

6-7 September Second Annual Hydrogen Connect Summit, Brisbane Convention and Exhibition Centre <https://hydrogenconnect.com.au>

26-27 October Asia-Pacific Hydrogen 2023 – Summit and Exhibition, ICC Sydney <https://www.asia-hydrogen-summit.com/>

21-22 November The Australian Hydrogen Conference (West) The Crown, Perth <https://australianhydrogenconference.com.au>

27-29 November Positioning Hydrogen 2023 Conference , Melbourne Convention and Exhibition Centre <https://hydrogenconferenceaustralia.com>