



Hydrogen
Society
of Australia

Looking backwards, looking forward!

Hydrogen is marching on – will you join us?

In this weeks email

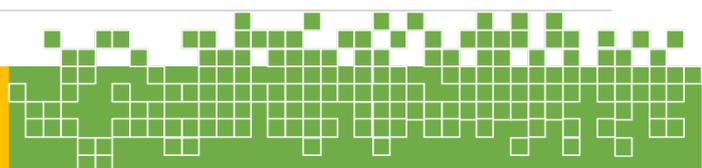
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Message from the HSA Steering Committee

As foreshadowed in our February newsletter, we have been pursuing a number of key initiatives to add value to our membership. Based on a recent membership survey (see results below), our key focus area has been to upgrade our website to include a members' only portal, designed to facilitate networking and provide a store of knowledge. The website is now live and ready for members to sign in and setup their profiles. Some of the functionality and content is still under construction, and we would welcome members comments and inputs as we proceed with the upgrade.

Under the leadership of **Adam Osseiran (HSA President)**, and in collaboration with **Clariden Global**, we have launched a series of twelve free events for our members, based on presentations from the 3rd Hydrogen Production, Storage, and Infrastructure Development Global Summit. Adam was the facilitator of the online Global Summit over the three days (19 to 21 January 2022), and has been reaching out to the presenters to provide them with an opportunity to update our members on the current status of the various hydrogen initiatives.

Adam will be taking a leave of absence over the next six months for family reasons. However, we are pleased to advise that **Lorie Jones (HSA Board Director)** will take on the role of Vice-President and will lead HSA in Adam's absence. Lorie is an Environmental / Systems Engineer with strong management consulting skills, and specialist expertise in strategic planning in complex regulatory environments. An active member of Engineers Australia, Lorie has held various senior Office Bearer positions including WA Division President (2008). She is currently on the WA Branch Committee of the College of Leadership and Management (CLM) and represents EA on Industry Advisory Boards for UWA and Curtin. She has recently contributed to an interesting article providing a historical perspective on hydrogen and fuel cells (see below).



Upcoming Events (internal) – H2 World Webinar Series

We are pleased to announce the launch of the Hydrogen Society of Australia and Clariden Global collaboration web series H2 World. Content will include presentations from the **3rd Hydrogen Production, Storage, and Infrastructure Development Global Summit (2022)**, updates from respective presenters and experts, live QnA sessions, as well as networking opportunities. We expect to deliver between ten and twelve modules over the next six months. The participation in the H2 World web series events and screenings will be available free of charge to HSA Members and will not be available to non-members.

- **Module 1 – Confirmed** for 30th March from 12pm to 1pm AWST: Our first module features Kapz Malhotra, ATCO's General Manager of Engineering Projects, delivering unique insights into "**How ATCO is Blending Hydrogen into the Gas Network**". The Summit presentation will explore updates on ATCO's hydrogen journey, including developments on the Clean Energy Innovation Hub (Jandakot), refuelling infrastructure, blending hydrogen into the gas distribution network, and the Clean Energy Innovation Park. The first module will be presented Australia wide on Wednesday the 30th March at 12pm to 1pm AWST. The HSA Perth chapter will also be hosting a in-person screening and networking event in the Perth CBD. Kapz will be joining us live to provide the latest news on these projects and will partake in a short QnA with the audience.
- **Module 2 – Confirmed** for 13 April from 14:00 to 15:00 AWST: Our second module features Alan Watkins, Executive General Manager at Coregas, presenting on the "**Port Kembla Case Study: Australia's First Hydrogen - Powered Trucks and Refueling Station In Decarbonizing The Freight Industry**". Alan will be joining us online to provide the latest news on these projects and will partake in a short QnA with the audience. Further details will be forthcoming soon.

Find out more about H2 World web series on our website: [H2 World web series](#)

Find out more about and register to the first module on the event page: [H2 World - Module 1](#)



Membership Survey Results

Thank you to all who completed in our recent Member Survey. The results give excellent insights into our current membership and will provide the HSA Steering Committee much-needed data to chart the way forward.

Findings showed areas of interest for the hard return value chain centered around hydrogen production, storage, transportation, safety and consumption. In addition, most respondents wanted HSA to provide value to its members by facilitating interactions with hydrogen projects, knowledge sharing, networking and collaboration opportunities.

To support the delivery of these, activities such as site visits, case studies, upskilling, short courses, knowledge about new hydrogen projects, hybrid and face-to-face events will be on our 2022 agenda. Focus areas for the development of our upcoming new members portal will include:

- Archives of recordings and PowerPoint presentations from past events, including some non-HSA events and conferences. We will shortly be making recordings of a recent conference proceedings available to members only
- Provision of a networking and collaboration platform.
- A jobs board for opportunities in the hydrogen sector.
- A register of skills and expertise in the hydrogen supply chain.

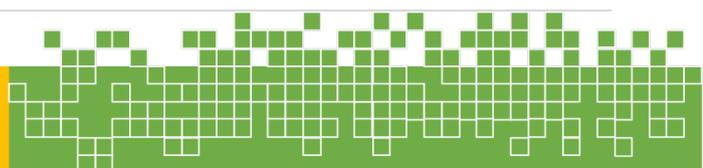
The survey also revealed that our members would like our broader community focus to increase the general public's awareness of hydrogen's role in decarbonization. We address this interest through online communications and events.

LinkedIn will be one of our primary channels to broadcast general and public information. Members will also benefit from direct communications in the monthly newsletter and the occasional provision of updates in-between relating to events or when pertinent industry news arises.

[Click here for a more detailed analysis of the membership survey results.](#)

Members in spotlight – A Historical Perspective of Hydrogen and Fuel Cells

Hydrogen and fuel cell technologies have gathered increasing traction in recent years to reduce the use of fossil fuels and achieve net-zero emissions by 2050, with the launch of National Hydrogen Strategies in countries all around the world (ie. Canada, France, Japan, Australia, Norway, Germany, Portugal, Spain, Chile, and Finland). This brief perspective describes the personal career journeys in the green hydrogen landscape of three members of the Hydrogen Society of Australia over the last 40 years.



Co-authors:

- Lorie Jones (Systems Engineer, FIEAust CPEng EngExec NER APEC Engineer)
- Raj Kurup (Environmental Engineer; CEO of Environmental Engineers International Pty Ltd and Adjunct Professor, Chemical Engineering, UWA)
- Quentin Meyer (Fuel Cell Cluster Leader and Lab Manager, UNSW)

Hydrogen and fuel cell technology has been developing since the mid-1800s. The concept of the hydrogen economy was taking off in the mid-70s, due to the escalating price of oil and gas. In terms of a basic definition, the hydrogen economy is not about a single technology but a combination of three, in that hydrogen would be used for: energy storage; energy vectoring; and fuel for vehicles.

The hydrogen research in the 1980s was building on technology which had been developing over centuries. Unfortunately, the stock market crash of 1982 led to a significant fall in the price of oil and gas, and societies interest in renewable energy faded away. While the first cycle of interest in the hydrogen economy faded out in the mid-1980s, the story was not over yet. Some researchers remained stubbornly committed to hydrogen, and in 1989 Geoffrey Ballard developed a new kind of fuel cell that used a conducting polymer as the electrolyte. It was a significant improvement, although not the breakthrough that it was said to be at the time. Much of the work done in the early 1990s was academic in nature and the real-world industry was far behind in the application of these concepts, particularly in the hydrogen space. Despite the clear vision of a hydrogen economy, concerns of economic viability and lack of strong political interests meant the world entered a slumber phase for nearly two decades. It is pleasing to note that there is now strong political support and industry is rapidly orientating towards the hydrogen economy.

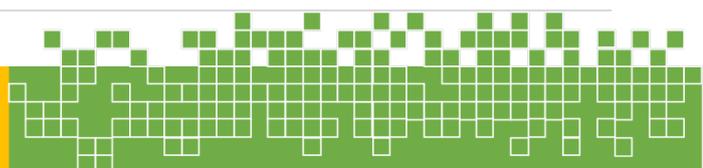
Since the early 2000s, the discussion on hydrogen has resurged, research grants have been provided and many projects are in the planning phase or underway. Through the Hydrogen Society of Australia, we can raise hydrogen awareness to the general public, build long-lasting connections with like-minded members and foster more Australian collaboration in this field.

[Click here to read the full article.](#)

Snippets of Hydrogen making moves around the world...

"Australian electrolyzer invention enables green hydrogen under US\$1.5/kg by 'mid 2020s'" - [Pv-magazine.com](#)

"New South Wales company Hysata is on track to commercialize the world's most efficient electrolyzer, capable of producing green hydrogen for less than US\$1.5 per kilogram by the 'mid 2020s,' it says. Moreover, the company believes it can reach gigawatt scale hydrogen production within a similar timeframe, saying its design is simple and suitable for mass manufacture today." [Further information here.](#)



"Novel hydrogen storage to be piloted in UK" - [Smart-energy.com](https://www.smart-energy.com)

"Australian hydrogen storage developer Carbon280's Hydrilyte refueller is set to be trialed in a world first in UK." [Further information here.](#)

"Our Hydrogen future: 27 authors imagine the world in 2030-2050" - [Energypost.eu](https://www.energypost.eu)

"Under the mantra 'Imagining the future is delivering it', 28 people around the globe, from hydrogen enthusiasts to energy realists, have contributed to the book 'Touching Hydrogen Future: Tour around the globe'. With a foreword from former EU Commissioner for Energy, Andris Piebalgs, each of the book's 27 chapters focuses on a specific country, providing a snapshot of hydrogen-powered life over the next twenty years. Starting in the Netherlands, the book's 'hydrogen tour' covers countries across six continents with insights from experts from every corner of the globe in a Jules Verne style odyssey." [Further information here.](#)

Funding Opportunity

HyGATE - German-Australian Hydrogen Innovation and Technology Incubator (HyGATE)

Funding Announcement - [Arena.gov.au](https://arena.gov.au)

"The HyGATE Initiative is intended to support real-world pilot, trial and demonstration projects along the hydrogen supply chain and to facilitate collaboration between Australian and German partners. Australia and Germany have respectively committed up to \$50 million and €50 million to establish the HyGATE Initiative...

We [Arena] are open to funding proposals for deployment stage projects related to any aspect along the entire value chain for hydrogen produced from renewables – from hydrogen generation from renewables, further processing into derivatives such as synthetic fuels or green ammonia, to transport, storage, usage and unlocking commercial or financing models...

An information session will be held on 23 March 2022 at 6:00 PM (AEDT)." [Further information here.](#)

We are all in this together...

Please share this newsletter with your network, as they may be interested in joining the HSA. Together we can foster a hydrogen society for Australia and a global renewable energy future.

Hydrogen is marching on - will you march with us?

<https://hydrogensociety.org.au/>

Contacts



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