



Hydrogen
Society
of Australia

Looking backwards, looking forward!

Hydrogen is marching on – will you join us?

In this month's email....

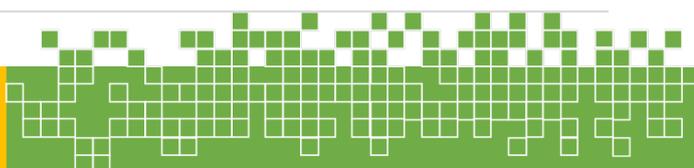
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Message from the HSA Steering Committee

As foreshadowed in our previous newsletters, we are continuing to pursue a number of key initiatives to add value to our membership. We have upgraded our website to include a members' only portal, designed to facilitate networking and provide a store of knowledge. We have launched a members networking group on LinkedIn. Some of the functionality and content is still under construction, and we would welcome members comments and inputs as we proceed with the upgrade. Not yet a member? Why should you join the HSA, with our new features coming up in the next few months?

- As a **recruiter**, you will access a database of professionals working in the hydrogen space, with a broad range of skills and expertise.
- As a **student** and **young professional**, you will access a network of well-established experts in the hydrogen space in Australia, with free or discounted training material and conference opportunities.
- As a **hydrogen industry expert**, you will promote your company through our regular webinars and newsletters, with your company listed on our database.
- As a **member of the public**, you will broaden your knowledge in hydrogen, and access premium contents such as webinars, interviews, member database and so much more!

Consider joining the HSA to get access to free or discounted events, training material and the latest information in the hydrogen space – [become a member](#).



Members Spotlight – Hydrogen Connect Summit 2022 – Key Takeaways

MCI partnered with H2Q (Queensland Hydrogen Industry Group) to deliver the inaugural Hydrogen Connect Summit, which was held at the Brisbane Convention & Exhibition Centre on 8-9 Sep 2022. The Hydrogen Society of Australia (HSA) was proud to support this summit as an **Endorsing Association**.

Lorie Jones – HSA Vice-President: I was pleased to attend the recent Hydrogen Connect Summit, along with my colleagues Arshdeep Kaur and Moni Khosravi. As a graduate Systems Engineer, I worked in a Canadian hydrogen research institute (Institute for Hydrogen Systems) for three years in the mid-1980s, simulating fuel cell applications (ie. long haul transport, underground mining vehicles). The stock market crash of 1982 led to a plunge in the energy price and societies interest in renewable energy and the hydrogen ecosystem faded away, resulting in the closure of the research institute. Four decades later, the Hydrogen Connect Summit provided a great indicator of the rising momentum of activity in the hydrogen space, both globally and across Australia. Congratulations to the H2Q organizing team for an outstanding event!



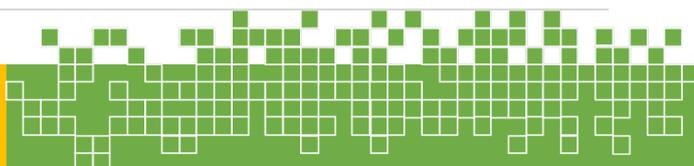
Arshdeep Kaur – Student: As a student engineer studying PhD (Water Electrolysis*) in Queensland University of Technology, I found the content of the Hydrogen Connect Summit (ie. presentations and display booths) very relevant to my future career pathways. For me it was an opportunity where global megatrends such as Energy Security, Renewable Energy, Electrolyzers and Fuel Cells were hotly debated. Day 1 held various conversations on industry and government responsibilities announcing new workforce needed to feed around 43 million global green jobs by 2050. On Day 2 ‘Big Deal’ that is Australia/Japan opportunities were presented, like JOGMEC investing US\$6.7M on projects in Queensland; and Sumitomo Corporation

investing for reliable supply of hydrogen for Japan. This would open \$1.5 trillion renewable opportunities in Australia. Presentations featuring new technologies like “Rio Tinto” hydrogen fueled mining, the Aurizon’s climate strategy and the Australian Government Guarantee of “Origins Policy” possibly be legislated before 2023. This two-day summit provided me with a vision to fit myself in the workforce and contribute my level best in the growth of Australia’s hydrogen sector.

Monireh Khosravi – Research Scientist: The Hydrogen Connect Summit very well showed that making Australia a winner in the global Hydrogen race is not simple and will require breaking the “chicken and egg” situation and making action which will need collaboration between public, academia, industry and government sectors. Attending the summit made an opportunity for me, as a Material Scientist, to recognize the current and future challenges in the hydrogen industry and start collaboration with industry to develop practical solutions for these challenges.

References: For a full list of the key takeaways refer to the following links:

- Hydrogen Connect Summit 2022, [Day One](#) and [Day Two](#) Highlights



Member Benefits – WA Business News Subscription (free guest access and discount)

The Hydrogen Society of Australia (HSA) has partnered with Business News (BN), to explore and collaborate on opportunities to promote hydrogen initiatives to professionals and the broader community. Business News is a respected, trusted, and credible independent news source for WA businesses and for any Australian with an interest in commerce, politics, and industry.

As highlighted by Ashleigh Dovadola (BN Subscription Relationship Manager), Australians are turning to BN not only for their business needs but also their daily news intake. Across our website platform we reach over 2 million unique readers annually including over 15,000 fully paid subscribers and a print readership of 25,000 senior executives. Business News would like to offer HSA members guest access for 4 weeks to explore our full content and features so that key individuals can gain a better insight into why Business leaders choose to engage with us year on year.

If you are interested to have free guest access for 4 weeks to explore Business News, please select the WABN subscription product within our Members Only portal. [Click here](#)

Upcoming Training – Safety and Risk Management, Standards and Regulations

The **Hydrogen Society of Australia** collaborated with **Gexcon** and **Integrated Energy** to provide a half-day training course and networking sessions on 24 August. The course provided an overview of the hydrogen ecosystem, hydrogen safety and risk management, standards and regulations. The participants came from a range of backgrounds including government entities, engineering consulting companies, academic institutions, and energy providers. The overall feedback from the event was very positive, and we are offering a repeat of this training module on 05 October.



Spaces are limited, so click on the following link to secure your spot.

<https://hydrogensociety.org.au/product/hydrogen-safety-and-risk-management-training-course-october-2022/>

Upcoming HSA Event – National Hydrogen Day 2022 – October 08

The Hydrogen Society of Australia (HSA), in collaboration with Murdoch University, will celebrate the 4th Australia Hydrogen Day 2022 (AHD22) on Saturday the 8th of October 2022, from 9:30 am to 3:00 pm, at Murdoch University, South Street, Murdoch. There will be a live broadcast from Perth to the other States.

We are currently finalising the program with speakers and sponsors. This event plan will engage school/university students, industry, professionals, academics, and government in the future of hydrogen. Speakers from government, industry, research organizations, and students will outline the status and future strategy for the hydrogen industry. In addition, there will be an exhibition of hydrogen industry and hub developments, research projects, and a hydrogen-themed students' poster competition to facilitate engagement and collaboration.

<https://hydrogensociety.org.au/product/4th-australia-hydrogen-day-celebration-2022/>

Registration for in-person and online attendance is open now until the 05 October and is free for HSA members. Registration for the Student Poster competition is now closed. Please get in touch with us if you want to sponsor this event or can help pull it together.
contact@hydrogensociety.org.au.

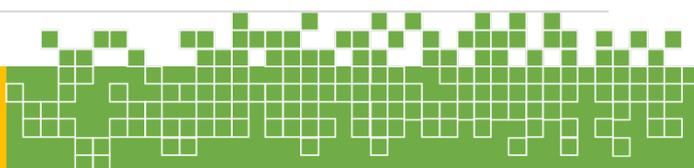
Upcoming HSA Event - World Renewable Energy Congress XXI – December 4th to 9th

The Hydrogen Society of Australia (HSA) is a Supporter of the [World Renewable Energy Congress XXI](#) to be held at Murdoch University in Perth Western Australia from 4th to 9th December 2022. The source and nature of energy, the security of supply and equity of distribution, the environmental impact of its supply and utilization, are all crucial matters to be addressed by suppliers, consumers, governments, industry, academia, and financial institutions. In addition to the traditional common and parallel session format, the conference will be offering several workshops relating to specific research, industry and policy issues.

As a Conference Supporter, the HSA will be organising two events on Sunday 4th December.

HSA Power-to-Hydrogen-to-X (P2H2X) Short Course: This short course is aimed at academics and industry leaders interested in learning more about the advantages and uses of different Hydrogen technologies. The P2H2X short course covers the Hydrogen Economy's essential technical and economic aspects comprising the four main areas of the hydrogen economy: production; storage and transport; safety and risk management; and utilisation. Several aspects of each of the areas will be presented and discussed. The presenters are recognised leaders in industry and academia who are abreast of the most current status of each area.

HSA Hydrogen Industry Workshop: A hydrogen industry workshop will follow the short course. The hydrogen industry leaders will present their projects' development, technical challenges, and barriers that hinder the Hydrogen Economy advancement. Presentations will be followed by a round table discussion to resolve the technical challenges and overcome regulatory, policy, and financial barriers. Participants will have the opportunity to hear directly from the Hydrogen



Industry leaders and discuss their insights with the subject matter experts and the WREC 2022 conference delegates.

Online registration is available now on the [WREC2022 website](#) (Early bird registration will be open until 05 October 2022). **HSA members will receive a 10% discount coupon - you can access the coupon discount by registering for the [WREC2022 discount on our website](#).**

Upcoming External Events (with HSA as a supporting partner/endorsing association)

17th International Symposium on Metal-Hydrogen Systems (MH2022) - 2022 Oct 30 to Nov 04 (Perth)

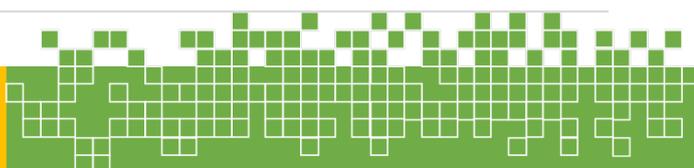
MH2022 is an International Symposium on Hydrogen that is held every two years at international venues around the world, and in 2022 we are expecting a large number of both International and National attendees, approximately 400 delegates. Although focussing on hydrogen storage, the Symposium program covers all areas of hydrogen such as production, storage, distribution and utilisation. The International Symposium runs over 5 days and a MH2022 Summer School will be held over 2 days prior to the Symposium (total length of Symposium + Summer School = 7 days). Craig Buckley (HSA Steering Committee member) will be chairing this conference and the HSA will be supporting this International Symposium as an Endorsing Partner, with **discounted registration fees for HSA Members**. More information on <https://www.metal-hydrogen2022.com/>.

Global Hydrogen Energy Meet: Positioning Hydrogen 2022 - November 21st to 23rd

This three-day conference will be held in Melbourne from 21 to 23 November 2022. One of the objectives of this conference is to highlight Australia's potential as a "green" hydrogen superpower. Positioning Hydrogen 2022 will be a closed door B2B event for international industry leaders and key decision-makers from across the value chain for exchanging valuable insights, building and fostering business relationships, and driving forward innovation and collaboration within the industry. HSA will be supporting this summit as an Endorsing Association and **there is a 20% discount for members of HSA** (contact our membership team on contact@hydrogensociety.org.au to obtain the membership discount code). [Click here for further details](#).

Snippets of Hydrogen making moves around the world

2022 09 08_Energy Snapshot Highlights Australia's Strengths_Energy Club WA: A snapshot of the nation's energy stocks has highlighted the potential for Australia to become a major producer of hydrogen for domestic use and as an export commodity. The hydrogen potential was contained in Geoscience Australia's assessment of Australia's Energy Commodity Resources assessment for 2022, which also included a detailed analysis of Australia's non-renewable energy resources comprising uranium, coal, oil, and gas commodities in 2020 and 2021. The report said that with large potential for renewable energy, abundant identified resources of natural gas and coal, and good potential geological storage sites for any co-produced CO₂, Australia is well placed to become a major hydrogen producer. <https://www.energyclubwa.org.au/ecwa-september-2022-newsletter-pages/energy-snapshot-highlights-australias-strengths>



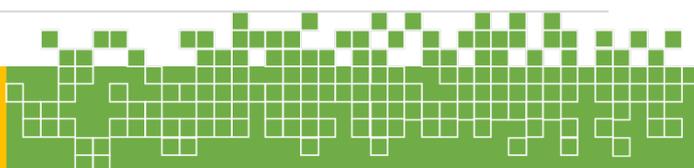
2022 09 02_New energy augurs' future value_BN: The return of Western Australia as a corporate powerhouse has gone largely unnoticed, but it is significant that three of the top 10 companies listed on the Australian Securities Exchange today call Perth home. Woodside, which expanded dramatically earlier this year through the acquisition of BHP's petroleum division, is the highest-ranking WA-based business at eighth on the ASX with a stock market value of \$62 billion. Fortescue, an iron ore specialist with a growing interest in hydrogen and other low-pollution fuels, is ninth on the ASX with a value of \$59 billion. Wesfarmers, best known for its ownership of the Bunnings hardware chain, is also heavily exposed to resources through its chemicals division (which produces mine explosives) as well as having an emerging lithium operation in a joint venture with Chile's SQM. <https://bit.ly/3CiU8LP>

2022 09 03_Posco hydrogen plans moulding into shape_BN: Posco's plan to build a hot briquetted iron plant in Port Hedland is advancing, while other South Korean businesses are weighing WA hydrogen investments, according to Alannah MacTiernan. Ms MacTiernan has been touting opportunities for the emerging sector in WA at the 2022 Global H2 Conference in South Korea. South Korean businesses were running the rule over projects such as Intercontinental Energy's Western Green Energy Hub near Esperance, the state government's Oakajee, and at Yara's ammonia plant on the Burrup Peninsula. <https://bit.ly/3xYpEvV>

2022 09 08_Energy giant earmarks \$4.4bn for Australia_BN: A world leader in wind power and green hydrogen has earmarked \$4.4 billion for Australia. Lured by new climate laws that will require billions of dollars of private capital to modernise a coal-dependent electricity grid, Europe's largest electricity company Iberdrola is looking to expand its footprint. Chair and CEO Ignacio Galán has met Prime Minister Anthony Albanese and Energy and Climate Change Minister Chris Bowen, and is also wooing state leaders and local investment partners. Already running Europe's largest industrial green hydrogen plant in Spain, he said Australia could consolidate its reputation as one of the largest global energy exporters by producing green hydrogen. <https://bit.ly/3BUxB6q>

2022 09 09_New device pulls water from air to make H₂_C&EN: Kevin Li and a team from the University of Melbourne, have built a device that can suck water out of desert-dry air to make H₂ (Nat. Commun. 2022, DOI:10.1038/s41467-022-32652-y). Their system sops up moisture with a sponge-like material that doubles as the electrolyte in electrolyzers powered by solar panels and wind turbines. The device rips H and O from water, and sequesters the reduced H₂ gas in a storage tank for later use. https://cen.acs.org/environment/green-chemistry/New-device-pulls-water-air/100/web/2022/09?ref=search_results

2022 09 13_Climate Council outlines 10 steps to beat government's 43pc emissions reduction target_ABC Science: The federal government's climate target is now enshrined in law. That means that by 2030, Australia's greenhouse gas emissions need to be 43 per cent lower than they were in 2005. Today, the Climate Council has released what it calls a "plug-and-play" road map for policymakers to smash through the ceiling. According to the report, 10 "game-changing" focuses can begin to drive emissions toward a 75 per cent reduction on 2005 levels by 2030, and to achieve "net-zero emissions shortly after". <https://www.abc.net.au/news/science/2022-09-13/climate-council-renewables-steps-beat-2030-emissions-targets>



2022 09 14_We got water! FHE's Bristol Springs Project moves closer to green hydrogen

production_Stockhead: After consulting with the Water Corporation, Frontier Energy has agreed on a preferred pathway to deliver water to the Bristol Springs Renewable Energy Project in WA's southwest – through the existing Stirling Trunk Main pipeline. While the indicative usage for stage one is 750kL per day, the pipeline connection proposed by the Water Corporation will have a capacity for 1,250kL per day – sufficient for an electrolyser of 150MW. This is four times larger than the facility proposed in stage-one (36.6MW facility), however aligns with FHE's mid-term expansion strategy.

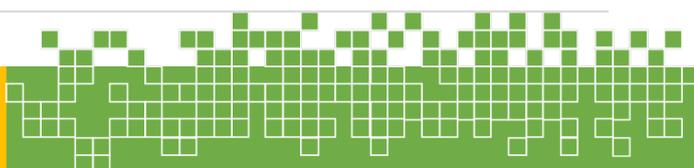
<https://stockhead.com.au/energy/we-got-water-fhes-bristol-springs-projects-moves-closer-to-green-hydrogen-production/>

2022 09 16_Costs up for Burrup hydrogen_BN: The Australian Renewable Energy Agency (ARENA) on Friday announced a grant of \$47.5 million towards the hydrogen and ammonia project near Karratha in Western Australia. That followed a \$42.5 million pledge in May 2021. The project is now expected to cost \$87.1 million. The Yuri project includes a 10-megawatt electrolyser to produce renewable hydrogen, powered by solar and lithium-ion batteries for energy storage, and will be one of the world's largest in operation. WA Hydrogen Industry Minister Alannah MacTiernan welcomed the final investment decision from ENGIE and Yara Pilbara Fertilisers for the Yuri project as an important milestone for WA's renewable hydrogen industry. "Yara Pilbara Fertilisers is a world-scale facility, and the project will demonstrate WA's ability to produce renewable hydrogen on an industrial scale," she said. <https://bit.ly/3SGqUfe>

2022 09 21_Coal closures a burning question_BN: IN February 2021, masked-up journalists headed downstairs at Spacecubed's Flux in the CBD to hear then WA Liberal leader Zak Kirkup's signature pitch to voters. The proposal was to shut coal power stations by 2025 and move the state government to net zero by 2030, with a big green energy offtake agreement intended to spark a new hydrogen industry. About 15 months later, Mr McGowan was making his own promise to shut down coal power. Synergy is to turn off all its remaining coal-powered generator units by 2030, with the state government hoping for an 80 per cent cut in emissions by 2030. Exactly where demand settles will depend on factors such as take up of electric cars and the development of projects using grid power to produce green hydrogen. <https://bit.ly/3RjPBgc>

2022 09 27_Pure Hydrogen thrilled at long-awaited big reveal of monstrous Aussie hydrogen-powered ute_Stockhead: Based on the Ford Ranger, the ute is being converted to include the H2X powertrain developed for light vehicles featuring a supercapacitor-based Hybrid system at factories in Sale, Victoria and in the Netherlands. The Warrego is H2X Global's first application to demonstrate the company's vehicle production capabilities. It will be targeted for release to support the large number of cities in Europe which will be closed off from diesel and petrol vehicles from 2025. Pure Hydrogen has a 23% stake in H2X which has achieved a global production footprint, and as a specialist in the development of hydrogen-powered vehicles, represents a great Aussie achievement in environmental innovation.

<https://stockhead.com.au/energy/pure-hydrogen-thrilled-at-long-awaited-big-reveal-of-monstrous-aussie-hydrogen-powered-ute/>



We acknowledge the support of our corporate members!

[Click here to find out more about their technical services and corporate offerings in the hydrogen space.](#)

- Innovate Australia
- BE&R Consulting
- Good Water Energy Ltd
- Hydrogen Energy Pty Ltd
- Polish Investment and Trade
- CO2CRC
- Edith Cowan University
- Queensland University of Technology
- Integrated Energy Pty Ltd
- Truck Centre WA
- Hyzon
- Environmental Engineers International
- Gexcon
- Sheoak International
- HF integration
- Murdoch university
- Horizon Power
- Draeger
- Development WA
- Parker
- Hybrid Systems
- Harry Butler Institute

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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