ENERGY OCEANIA
FOR A SUSTAINABLE FUTURE

PRISM

7th INTERNATIONAL CONFERENCE ON

GLOBAL RENEWABLE ENERGY

NOVEMBER 23–25, 2026

HILTON SURFERS PARADISE HOTEL & RESIDENCES
GOLD COAST, AUSTRALIA



SUPPORTING PARTNER

HSA Hydrogen Society of Australia

www.energyconferenceaustralia.com

INSTRUCTIONS FOR SPEAKERS

1. **Plenary Talks:** Plenary speakers will be allotted 25 minutes to present their results, followed by a 5 minutes discussion period.
2. **Keynote Talks:** Keynote speakers will be allotted 20 minutes to present their results, followed by a 5 minutes discussion period.
3. **Invited Talks:** Invited speakers will be allotted 17 minutes to present their results, followed by a 3 minute discussion period.
4. Please do not exceed the allotted time slot.
5. Speakers should have their presentations saved on a USB memory stick.
6. It is suggested to email a copy of the presentations to us as back up.
7. Please prepare the presentation in PPT files, PDF is not recommended.
8. Basic AV setup will be provided: laser pointer, cordless mike, desktop mike, sound system.
9. Laptops equipped with Windows 10, Office 2010 Pro English (Word, Powerpoint, Excel) and Adobe Reader are provided.
10. If your presentation files contain movies, please make sure that they are well formatted and connected to the main files. You may check your slides during the breaks.
11. Projectors are equipped with standard VGA connection ports. Mac users should bring their own adapter cord.
12. Please re-check this program prior to the conference to confirm if any changes have been made to your session.
13. Conference volunteers will move the mic during Q&A. Audience with questions may raise hand to receive the mic.

INSTRUCTIONS FOR VIRTUAL PRESENTATION

SPEAKER ZOOM GUIDELINES

How to Participate in a Zoom Meeting?

If you have trouble logging in to Zoom or any technical issues, please write to us at **committee@energyconferenceaustralia.com or Call Us +61 426926027**

Join a Meeting

- Join a meeting by clicking on a Zoom link recevied from the organizers.
- Follow the prompts to download and run Zoom application
- Enter the meeting ID if prompted
- Click to join the audio.
- When you are in the meeting, click on the Start Video button to start your video.

If you already have Zoom software installed: Open the Zoom platform, click 'join' and enter the meeting ID and password.

Mute/Unmute & Audio Settings

You can mute and unmute your microphone. The host also can mute you. We recommend using a headset and/or micro-phone as it will lead to better sound quality than using your computer audio. Turn off all sound notifications on your device. Note: During the presentation we will unmute everyone except the speaker and the chairs.

Screen Share

You will be allowed to share your screen during your presentation. Your computer screen will become visible to all the participants once you start sharing your screen. Please close all other applications on your computer so that notifications do not appear during your presentation. Keep the PowerPoint slide open on your system before you click the 'Share Screen' button. You are recommen ded to share the specific PowerPoint slide and not your desktop.

Presentation Timings

Please note that all the timings mentioned in the program are as per the Australia Eastern Standard time (AEST) (UTC+10). Do ensure that you check the time difference well in advance and join the meeting at least 30 minutes prior to your scheduled presentation time. If you need us to tell the specific time slot for your presentation (in local time zone), do let us know. (or) use world time buddy.com for the accurate time zone.

CONFERENCE CHAIR



ANDREW DICKS

CEO of the AHRN
Principal Research Fellow
Griffith University
Australia

CONFERENCE CO-CHAIRS



Melinda Krebsz

Research Fellow
Australian National University
Australia



Miro Moss

Business Development Director
Haskoning
Australia

DAY-1, NOVEMBER 23, 2026

08:30-09:00 **Registration**

09:00-09:15 **Welcome Remarks by Conference Chair: Prof. Andrew Dicks**

PLENARY SESSION

Session Chairs: Andrew Dicks, Griffith University, Australia
Miro Moss, Haskoning, Australia

09:15-09:45 **Title:** Redox Flow Batteries: Challenges and Opportunities
Hongxia Wang, Queensland University of Technology, Australia

09:45-10:15 **Title:** Zero-Emission Thermoelectrics for Solid-State Power Generation and Cooling
Zhigang Chen, Queensland University of Technology, Australia

10:15-10:45 **Title:** Unplugged: What Electricity-Free Hydrogen Changes
Alana Barlow, Sparc Hydrogen, Australia

10:45-11:05 **COFFEE BREAK**

11:05-11:35 **Title:** Introduction to Renewable Liquid Gas – an LPG Alternative
Jordan McCollum, Gas Energy Australia, Australia

11:35-12:05 **Title:** From Pilot Plant to Industry Impact: What We Learned Building and Operating a Green Hydrogen Demonstrator
Navin Bhardwaj, Queensland University of Technology, Australia

Session: Hydrogen and Its Derivatives

12:05-12:30 **Keynote Talk:** Hydrogen – Australian Domestic Opportunities, with Example Project Helios as a Showcase
Robert Saunders, Elecseed, Australia

12:30-12:55 **Keynote Talk:** Clean Energy Transition: Advancing Safety, Reliability and Performance
Fatemeh Salehi, Macquarie University, Australia

12:55-13:15 **Title:** Plug's Hydrogen Ecosystem
Laurent van Helden, Plug Power, Australia

13:15-14:00 **LUNCH BREAK**

Session Chairs: Andrew Dicks, Griffith University, Australia
Melinda Krebsz, Australian National University, Australia

14:00-14:25 **Keynote Talk:** Emerging Technologies for Hydrogen Production: Enabling Low-Carbon Liquid Fuels
Amy Philbrook, Hadean Energy, Australia

14:25-14:45 **Title:** Overview: Extending LFP Battery Life in FCAS and VCAS Applications Using Passive Supercapacitor Hybridisation
Andreas Helwig, University of Southern Queensland, Australia

14:45-15:05	**Title:** Carbon is the Upgrade, Not the Business: Why Biochar Removal Supply Stalls Before it Reaches a Buyer **Marcus Curcija,** Insight Into Impact, Australia
15:05-15:25	**Title:** Solar Farms Beyond Energy Generation: Understanding the Environment Within PV Arrays **Aladeh Jafari,** University of Queensland, Australia
15:25-15:45	**Title:** Overcoming the Human Capital & Technical Skill Bottlenecks in Greenfield Critical Minerals Scale-Ups **Emilie Chautard,** Consult Connect, Australia
15:45-16:05	**COFFEE BREAK**
16:05-16:25	**Title:** Hydrogen Energy Release Optimiser (HERO®) **Ashkan Vatani,** Star Scientific Limited, Australia
16:25-16:45	**Title:** Powering Data Centres in Australia - What Hydrogen Taught Us About Building the Electricity Infrastructure First **Stephen Foster,** Fusion Source Energy, Australia
16:45-17:05	**Title:** Leveraging AI in Renewable-Powered Green Hydrogen Systems: From Variable Power to Reliable Hydrogen **Kinley Dorji,** Queensland University of Technology, Australia
17:05-17:25	**E-Poster Presentation**
P1	**Title:** Dual Modification of Hard Carbon Anodes through Boron Doping and g-C_3N_4 Surface Coating for Advanced Sodium-Ion Batteries **Dohyeon Yu,** Jeonbuk National University, Republic of Korea
P2	**Title:** Surface Engineering of Hard Carbon Anodes *via* g-C_3N_4-Derived Nitrogen-Doped Carbon Coating for Sodium-Ion Batteries **Gyu-Jeong Jang,** Jeonbuk National University, Republic of Korea
17:25-18:25	**Panel Discussion: Delivering Renewable Energy and EV Charging in Grid-Constrained Locations**
	Moderator: Melinda Krebsz, Australian National University, Australia
	Panelist: George Koolman, Haskoning, Australia **Panelist:** Stephen Foster, Fusion Source Energy, Australia **Panelist:** Amy Philbrook, Hadean Energy, Australia **Panelist:** Chris Yang, COO of eLumina, Australia
18:30	**Closing**

DAY-2, NOVEMBER 24, 2026

Session: Powering Data Centres and Clean Fuels

Session Chairs: Andrew Dicks, Griffith University, Australia
Melinda Krebsz, Australian National University, Australia

09:00-09:25	**Keynote Talk:** Different Wastes, Shared Chemistry: Hydrogenolysis Routes from Biomass and Plastics to Fuels **Francesco Mauriello,** Università Mediterranea di Reggio Calabria, Italy
09:25-09:50	**Keynote Talk:** Powering Oceania's Next Growth Wave: Energy Security, Clean Energy and the Data Centre Boom **Sam Lee Mohan,** S&P Global Energy, Australia
09:50-10:10	**Title:** Regional Waste & Energy Hub (RW&EH) A Research, Innovation and Sovereign Capability Platform **Andreas Helwig,** University of Southern Queensland, Australia
10:10-10:30	**Title:** Enabling Net-Zero Heavy Industry Through Biomass-Derived Syngas Combustion for Renewable High-Temperature Process Heat **Vahid Shadravan,** CSIRO, Australia
10:30-10:50	**Title:** Powering AI Beyond the Grid - Enabling AI Growth with Renewable-Powered Energy Hubs **George Koolman,** Haskoning, Australia
10:50-11:10	**COFFEE BREAK**
11:10-11:35	**Keynote Talk:** Exploring the Water-Energy Nexus: Insights from Solar Desalination in Remote Regions - Problem or Opportunity? **Mélanie Ducros,** FACET, Australia
11:35-11:55	**Title:** How Digital Tools Are Bridging the C&I Storage Gap **Amelia Xia,** Suncloud Energy, Australia
11:55-12:15	**Title:** Mind the Gap: The Road to Zero-Emission Freight in Australia **Pouran N Hudson,** Curtin University, Australia

Panel Discussion: The Social Speed Limit on the Energy Transition

Moderator: Marcus Curcija, Insight Into Impact, Australia

12:15-13:15	**Panelist: Mélanie Ducros,** FACET, Australia **Panelist: Vahid Shadravan,** CSIRO, Australia **Panelist: Jeanne Steijn,** Haskoning, Australia **Panelist: Marni Riley,** Hamilton Locke, Australia
13:15-14:00	**LUNCH BREAK**

Session: The Future of Energy Storage

Session Chairs: Andrew Dicks, Griffith University, Australia
Miro Moss, Haskoning, Australia

14:00-14:25 **Keynote Talk:** Advanced Semiconductor Quantum Dots and Hybrid Heterostructures for Next-Generation Self-Powered Optoelectronic Devices and Sustainable Energy Applications
Muhammad Sulaman, Minzu University of China, China

14:25-14:45 **Title:** Maximising Whole-of-Life Performance: The Future of Solar + BESS Hybridisation
Alba Ruiz Leon, Specialised Energy Solutions, Australia

14:45-15:05 **Title:** Computational Exploration of Z-Scheme Heterostructures for High-Efficiency Photocatalytic Hydrogen
Redi Kristian Pingak, The University of Sydney, Australia

15:05-15:25 **Title:** Can Australia's Electricity and Water Resources Keep Up with the AI Boom?
Weizhi Zhang, University of New South Wales, Australia

15:25-15:45 **Title:** Victoria Hydrogen Hub (VH2) – A Case Study for Research, Industry and Government Collaboration
Gordon Chakaodza, FACET, Australia

15:45-16:05 **COFFEE BREAK**

VIRTUAL PRESENTATION AUSTRALIA EASTERN STANDARD TIME (AEST) (UTC+10)

16:05-16:30 **Keynote Talk:** Emerging Functional Materials for Sustainable Portable Energy Devices
Miaoqiang Lyu, University of Queensland, Australia

16:30-16:50 **Title:** Thermal Energy Storage Materials: Design of High Energy Storage Capacity Eutectic Systems
Karolina Matuszek, Monash University, Australia

16:50-17:10 **Title:** Current Status and Recent Advancements in Underground CO_2 Storage and Associated Risks
Kun Sang Lee, Hanyang University, Republic of Korea

17:10-17:30 **Title:** I Have a Significant Experience in CB-VET Erasmus Plus Innomed
Maria Romano, Università del Salento, Italy

17:30-17:50 **Title:** Açaí Seed (*Euterpe Oleracea*) Residue in Co-combustion with Mineral Coal - Advanceds in Amazonia Region
Danielle Regina da Silva Guerra, Federal University of Pará, Brazil

18:00 **Closing**

DAY-3, NOVEMBER 25, 2026

09:45-13:00 **Technical Tour and Refreshments**

eLumina Global
1 Warehouse Circuit, Yatala, QLD 4207

PRISM

PROFESSIONAL CONFERENCE ORGANIZERS

Prism Scientific Services Pty Ltd., a premier conference organizer, envisions a sustainable future for the Renewable Energy and Hydrogen. Our goal is to unite experts and stakeholders through conferences, fostering collaboration and advancing sustainable practices. Committed to curating conferences on materials science, renewable energy and eco-friendly technologies, we catalyze the industry's development. Emphasizing interdisciplinary collaboration, our events address complex challenges. Dedicated to sustainability, we minimize footprints and promote eco-friendly venues, inspiring environmental responsibility. As catalysts for positive change, guiding the energy industry toward an innovative, environmentally responsible future in conferences that prioritize sustainable development.

If you are interested in forming a partnership with us for the planning and organization of conferences and events worldwide, please don't hesitate to contact us *via* email at **committee@energyconferenceaustralia.com** or by phone at **+61 426926027.** Our services extend to facilitating conferences anywhere in the world, and we look forward to the opportunity to discuss your specific needs and requirements.

WE WISH TO SEE YOU AT ENERGY OCEANIA-2027

PRISM

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