

Global Renewable Energy Meet (Hybrid)

Melbourne Convention and Exhibition Centre (MCEC) | Online-Zoom

August 29-30, 2022 - Hybrid

August 31, 2022 - Online



Venue Address:

Melbourne Convention and
Exhibition Centre (MCEC) 1
Convention Centre Pl

South Wharf VIC 3006

Australia



**CONVENTION CENTRE
LEVEL 2**



- MEETING ROOMS
- BACK OF HOUSE
- ORGANISERS' OFFICES
- SPEAKER PREPARATION ROOM
- DRESSING ROOMS
- WINDOWS

08:00-08:45 On-site Registrations and Conference Material Distribution

08:45-09:00 Introduction and Opening Remarks

Day 1 Moderator: Nasir Mahmood, RMIT University, Australia

Plenary Session

(Each Talk 30 Minutes+5 Minutes Q&A)

Chair: Volker Hessel, The University of Adelaide, Australia



09:00-09:35

AI-empowered Cyber-physical Systems Technology for Renewable Energy Future

Xinghuo Yu, RMIT, Australia



09:35-10:10

2D Nanomaterials for Sustainable Energy Storage and Conversion

Ziqi Sun, Queensland University of Technology, Australia



10:10-10:45 **Online**

Recent Developments in Photovoltaics

Martin Green, University of New South Wales, Australia

10:45-11:15 **COFFEE BREAK**

@Foyer



11:15-11:50

Designer Catalysts for Biorefining

Karen Wilson, RMIT University, Australia



11:50-12:25 **Online**

Enhancing Renewable Energy Uptake with Energy Storage Systems

Joe Dong, University of New South Wales, Australia



12:25-13:00 **Online**

Multifunctional Synergy Strategies for Materials Design, Processing and Applications

Shi Xue Dou, University of Wollongong, Australia

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

@Foyer

Keynote Talks

(Each Talk 25 Minutes+5 Minutes Q&A)

Chair: Xinghuo Yu, RMIT, Australia



14:00-14:30

Materials Designing for Electrochemical Energy Storage

Nasir Mahmood, RMIT University, Australia



14:30-15:00

Local Ammonia Processes from Renewables with Renewable Energy - for Resilience and Circularity of Fertiliser Manufacturing

Volker Hessel, The University of Adelaide, Australia



15:00-15:30

2D Ferroelectrics: Candidate for Controllable Physical and Chemical Applications

Liangzhi Kou, Queensland University of Technology, Australia



15:30-16:00 **Online**

Designer Catalysts for Sustainable Biodiesel

Adam Lee, Zhengzhou University & Nanjing Forestry University, China

16:00-16:30 COFFEE BREAK

@Foyer

16:30-18:00

PANEL DISCUSSION: NEXT DECADE OF ENERGY TRANSITION IN AUSTRALIA



Moderator:

Jeremy Stone, J-Power Latrobe Valley, Australia

PANELLISTS



Kedem Levy
AIE VIC, Australia



Elizabeth Boylan
Deloitte, Australia



Mendo Kundevski
S&P Global, Australia



Emma Fishburn
FTI Consulting,
Australia



Antonin Demazy
Accenture, Australia

18:00 Onwards

Cocktails & Networking



08:20-08:30 Introduction and Day 2 Opening Remarks

Forum-Women in Renewable Energy

Keynote Talks

(Each Talk 25 Minutes+5 Minutes Q&A)

Chair: Tara Hosseini, CSIRO, Australia



08:30-09:00

Why Women Must be Front and Center in the Emerging Renewable Energy Sector in Australia

Blair Palese, Ethinvest, Climate & Capital Media, Australia



09:00-09:30 **Online**

How Women Are Leading Change in the Energy Transition

Alessia Falsarone, PineBridge Investments, USA

Invited Talks

(Each Talk 15 Minutes+5 Minutes Q&A)



09:30-09:50

Renewables in Australia-Outlook

Sally Torgoman, KPMG, Australia



09:50-10:10

Market Dynamics in the Rapidly Changing National Electricity Market

Johanna Bowyer, IEEFA Asia Pacific, Australia



10:10-10:30 **Online**

Effect of Disruptive Battery Technologies on Material Resource Availability

Mahdokht Shaibani, RMIT University, Australia

10:30-11:00 COFFEE BREAK

@Foyer

Green Hydrogen, Hydrogen Production Technology and Fuel Cells

Chair: Nasir Mahmood, RMIT University, Australia

Keynote Talks

(Each Talk 25 Minutes+5 Minutes Q&A)



11:00-11:30

Hydrogen Technology Pathways Supporting Cross-sectoral Decarbonisation

Nikolai Kinaev, CSIRO, Australia



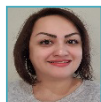
11:30-12:00 **Online**

A High Performance Capillary-fed Electrolysis Cell Promises more Cost-competitive Renewable Hydrogen

Gerhard Swiegers, University of Wollongong, Australia

Invited Talks

(Each Talk 15 Minutes+5 Minutes Q&A)



12:00-12:20

Techno-economic Assessment of Hydrogen Production Technologies

Tara Hosseini, CSIRO, Australia



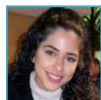
12:20-12:40

Hydrogen Zero Emission Buses Manufacturing in Australia - Challenges

Arnaldo Sanchez, Volgren, Australia

Oral Presentations - Emerging Researchers

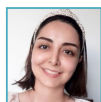
(Each Talk 10 Minutes+5 Minutes Q&A)



12:40-12:55

Electrochemical Synthesis of Ammonia Using Functionalized Graphene Fibre

Farida El-Sheekhly, University of New South Wales, Australia



12:55-13:10

Porous Nickel Phosphide Nanosheets as Bifunctional Electrocatalyst for Efficient Hydrogen Production via Urea-assisted Water Electrolysis

Mahrouz Alvand, University of New South Wales, Australia



13:10-13:25

Electrochemical Synthesis of Renewable Ammonia as a Hydrogen Carrier

Angus Jenkins-Cox, University of New South Wales, Australia

13:25-14:25 LUNCH BREAK

@Foyer

Advance Energy Storage Materials, Systems and Technologies Smart Grids and Power Systems Bio and Wind Energy

Chair: Ziqi Sun, Queensland University of Technology, Australia

Featured Presentations

(Each Talk 15 Minutes+5 Minutes Q&A)



14:25-14:45

Project SHIELD – A Novel Approach to Data for Networks

Patrick Matweew, Redback Operations Pty Ltd, Australia



14:45-15:05 Online

Geothermal Energy Technologies: Challenges and Future Opportunities

Pabasara Wanniarachchig, University of Wollongong, Australia



15:05-15:25

Blending Hydrogen and Biofuels in Internal Combustion Engines on the Road to Decarbonize Transport

Sami Elmassalami Ayad, The Federal University of Rio de Janeiro, Brazil



15:25-15:45 Online

Nanospace Confinement: from Material Design to Energy Storage Applications

Bin Luo, The University of Queensland, Australia



15:45-16:05 Online

Hydrodynamics, Mooring and Power Take-off Analysis of Hybrid Offshore Wind and Wave Energy Platform

Aziz Ahmed, University of Wollongong, Australia

Oral Presentations - Emerging Researchers

(Each Talk 10 Minutes+5 Minutes Q&A)



16:05-16:20 **Online**

Electrocatalytic CO₂ Reduction Reaction for Fuels and Value-added Chemicals Production by Oxide-derived Cu
Chen Han, UNSW, Australia



16:20-16:35

Selective Methane Formation from CO₂ using Amorphous TiO₂ Encapsulated Halide Perovskite Nanocomposite Photocatalyst
Smruti Purohit, IIT Roorkee, India



16:35-16:50

Piezocatalysis for Efficient Hydrogen Peroxide Generation by Lead-free Ternary BaCaZrTi Perovskite Oxides
Kai Wang, Curtin University, Australia

09:30-09:50 AV Check

09:50-10:00 Introduction and Day 3 Opening Remarks

Day 3 Moderator: [Anna Ostroverkh](#), IPM NAS of Ukraine, Ukraine & TU Darmstadt, Germany

Forum-Women in Renewable Energy (Virtual)

Keynote Talks

(Each Talk 25 Minutes+5 Minutes Q&A)



10:00-10:30

Hydrogen as the New Green Oil in the Center of National and International Energy Transition Plans: Chances and Challenges for Renewable Energy Sector

[Sibylle Weiler](#), Bird & Bird, France



10:30-11:00

Knowledge and Cooperation are the Only Way to Address Global Issues and Achieve Zero Emissions Targets by 2050

[Anna Ostroverkh](#), IPM NAS of Ukraine, Ukraine & TU Darmstadt, Germany

Invited Talks

(Each Talk 15 Minutes+5 Minutes Q&A)



11:00-11:20

European and German Climate and Energy Law

[Anna Halbig](#), Environmental Energy Law Foundation, Germany



11:20-11:40

Building Hydrogen Fuel and Hydrogen Technology Supply Chains

[Michaela Kendall](#), Adelan Ltd, UK



11:40-12:00

Hydrogen's Role in a Sustainable Future - A Thorough Evaluation

[Canan Acar](#), University of Twente, Netherlands



12:00-12:20

Green Hydrogen: an Economic Opportunity for Ireland

[Vanessa Pulgarin](#), ElH2, Ireland



12:20-12:40

Proliferation and Integration of Renewable Energy in India

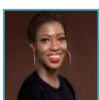
[Nupur Shah](#), SustainBhoomi Renewable & EV Consultancy LLP, India



12:40-13:00

Energy Transition- Regulatory and Commercial Challenges

[Beenish Mehar](#), Stechennergies, Pakistan



13:00-13:15

Hybrid PV Technology and its Opportunity for Africa

[Georgette Udo](#), Abdou Moumuni University, Niger

13:15-13:40 BREAK

**Green Hydrogen, Hydrogen Production Technology and Fuel Cells
Advance Energy Storage Materials, Systems and Technologies
Smart Grids and Power Systems
Bio and Wind Energy**

Invited Talks

(Each Talk 15 Minutes+5 Minutes Q&A)



13:40-14:00

Developing Sustainable Electrodes for Water Splitting and Green Hydrogen Production

Maria Helena de Sá, CIQUP/University of Porto, Portugal



14:00-14:20

Onshore v/s Offshore Wind Energy Production in Germany: 2010-2020

Eugenio Vogel, University of La Frontera, Chile



14:20-14:40

Machine Learning Algorithms and Limitations in Evaluation of the Wake Characteristics for Wind Turbine

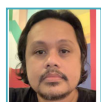
Eddie Y.K. Ng, Nanyang Technological University, Singapore



14:40-15:00

Decentral Hydrogen

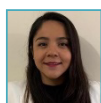
Paul Grunow, Trinity Solarbeteiligungen GmbH, Germany



15:00-15:20

Life Cycle Analysis of Multi-Stakeholder-Preferred Green Hydrogen Production System

Alvin Garcia Palanca, University of the Philippines Diliman, Philippines



15:20-15:40

Green Hydrogen Potential in Chile and LATAM

Catalina Machicao, Austria Energy, Chile



15:40-16:00

Nanoengineered Materials for Green Hydrogen Production: Technology Outlook for Energy Transition

Anupma Thakur, IUPUI, USA



16:00-16:20

The Status of Today's Global Hydrogen Market

Bridget van Dorsten, Wood Mackenzie, USA



16:20-16:40

Hydrogen's Role in Decarbonizing the Freight Rail Transportation Sector

Gladys Anyenya, Wabtec Corporation, USA



PRISM

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