

# WREC2026

## 2030 Horizon: The Path to Net Zero Emissions with Renewable Energy

Western Australia  
8 – 11 February 2026

Program (subject to change)

### Sunday 8<sup>th</sup> February 2026

Time	Event
8:30 am	Registration- Level 4, Boola Katitjin
9.00am - 12.00pm	Short Course 1: Integrated Energy Planning for Net-Zero Emissions – Mr. Md Anis Zaman Room (360.4.020) - level 4 Boola Katitjin
1:00pm - 5.00pm	Short Course 2 : Hydrogen Economy – Dr. Furat Dawood Room (360.4.020)- Level 4, Boola Katitjin Short Course 3 : How to Get the Best Out of Your Solar System – Prof. Wasim Saman Room(360.4.021) - Level 4, Boola Katitjin
4.00 - 5:30pm	Early registration: Level 4, Boola Katitjin
5.00 – 6.00 pm	Public Meeting – Chair: Assoc. Prof Martin Anda, <i>Murdoch University</i> Prof. Peter Newman AO , <i>Professor of Sustainability at Curtin University</i> and before that he was a Murdoch University Foundation academic from 1974 until 2007 . <b>'Renewables Will Save The Planet: How?' Place – Rosemary van dan Berg Room Boola Katitjin, Level 4 (360.4.003)</b>

6:00 pm	Refreshments and Networking
6:30pm - 8:30pm	Welcome reception BBQ: Sir Walter's Restaurant, Murdoch Campus ( <b>Registered Conference Participants only</b> )

## Monday 9th February

Time	Event
8:00am	Registration – Level 4 Boola Katitjin
8:30am	<p>Conference Inauguration – Level 4 Boola Katitjin Rosemary van dan Berg Room (360.4.003)</p> <p>Chair: Prof Tania Urmee, <i>Chair of WREC 2026, Murdoch University.</i></p> <ol style="list-style-type: none"> <li>1. Welcome to Country: Mr Dylan Collard, Nyoongar language teacher ,dancer and currently completing PHD in Nyoongar language.</li> <li>2. Welcome from Murdoch University: Prof Andrew Deeks, <i>Vice Chancellor, Murdoch University.</i></li> <li>3. Welcome from World Renewable Energy Network (WREN): Prof Ali Sayigh, <i>Director General, WREN.</i></li> <li>4. Message from <i>Assistant Minister for Climate Change and Energy of Australia</i> Hon Josh Wilson MP (recorded).</li> <li>5. Conference inauguration: Mr Jai Thomas, <i>Deputy Director General at DEED and Coordinator of Energy at Energy Policy, WA.</i></li> </ol>
9:15am	<p>Keynote Speeches: Rosemary van dan Berg Room level 4 Boola Katitjin (360.4.003)</p> <p>Chair: Prof GM Shafiullah, <i>Chair of WREC 2026, Murdoch University.</i></p> <ol style="list-style-type: none"> <li>1. Message from Siswo Pramono, <i>Ambassador of The Republic of Indonesia to Australia, Canberra.</i></li> <li>2. Prof Ali Sayigh, <i>Director General, WREN, From Watt to Giga Watt in 50 Years: The use and production of PV increased beyond imagination.</i></li> <li>3. Mr. Tim Bray, <i>Department of Energy and Economic Diversification, Transitioning Western Australia Energy Systems: The path to reliable low emissions energy .</i></li> <li>4. Prof. Peta Ashworth OAM, <i>Curtin University, 2030 Horizon: Are we complicating the journey?</i></li> </ol>
10:15am	Morning Refreshments – <b>Poster presenters are advice to be at their poster for participants to ask questions and share the knowledge</b>

World Renewable Energy Congress XXV – Murdoch University, Perth, 8 -13 February 2026

10:45am	<p><b>Common Session 1: Rosemary van dan Berg Room, level 4, Boola Katitjin (360.4.003)</b></p> <p><b>Topic: Decarbonization and Industry Transition</b>  <b>Chair: Professor Parisa A. Bahri, <i>Pro Vice Chancellor and Head, College of Science, Technology, Engineering and Mathematics, Murdoch University</i></b></p> <ol style="list-style-type: none"> <li>1. Hon Dr Brad Pettitt MLC, <i>Member of Legislative Council, Good and Bad Renewables: How Australia can speed-up the transition with better planning and regulation</i></li> <li>2. Prof. Frank Jotzo, <i>Australian National University, Reshaping the global geography of heavy industry for net-zero: trade and climate policy.</i></li> <li>3. Prof. Ray Wills, <i>Future Smart Strategies, The fastest rollout of energy in human history.</i></li> </ol>					
11:45 am–12:30pm	<p><b>Parallel Session 1. 1 (360.4.003)</b></p> <p><b>Topic: 4.1 Transition &amp; Critical Minerals</b></p> <p><b>Chair: Dr. Linda Li, Murdoch University</b></p> <p>1. Mr Muhammad Saladin Islami, Murdoch University, <b>Opportunities and Challenges in Decarbonising the Critical Mineral Industry: A Case Study in Indonesia</b></p>	<p><b>Parallel Session 1.2 (360.4.021)</b></p> <p><b>Topic: Industry</b></p> <p><b>Chair: Mr. Max Van Someren, Bivios</b></p> <p>1. Dr Arsalan A. Ghavanini, Murdoch University, <b>Decarbonising the cement and concrete industries with Renewable Energy and Circular Economy</b></p>	<p><b>Parallel session 1.3 (360.4.022)</b></p> <p><b>Topic: Solar PV&amp; Hybrid</b></p> <p><b>Chair: Dr Martina Calais, Murdoch University</b></p> <p>1. Dr Elaine Walker, Murdoch University, <b>Performance Analysis of the 180-kW Pilot Solar Farm in Rubesa, Bhutan</b></p>	<p><b>Parallel session 1.4 (360.4.023)</b></p> <p><b>Topic: Decarbonization</b></p> <p><b>Chair: Prof. Peta Ashworth OAM, Curtin University</b></p> <p>1. Dr Zhang, Murdoch University, <b>International partnerships for decarbonisation and business developments: the case of sustainability education in Lombok, Indonesia</b></p>	<p><b>Parallel session 1.5 (360.4.031)</b></p> <p><b>Topic: Hydrogen</b></p> <p><b>Chair: Prof Ahmad Zahedi, James Cook University</b></p> <p>1. Miss Ayesha Kaleem, Curtin University, <b>Renewable Hydrogen in Western Australia: How Utilisation, Variability, and Policy Shape Competitiveness.</b></p>	<p><b>Aboriginal Stream 1 (360.4.020)</b></p> <p><b>Theme : Remote Aboriginal Community Energy Transition: Circular Economy model for renewable energy upgrades</b></p> <p><b>Chairperson: Ms. Cat Holland</b></p> <p><b>Resource Person: Amin Hari</b></p> <p><b>Name of the Presenter: Assoc.</b></p>

	<p>2.Mr Shaloom Mbambu Kabeya, Institut Supérieur des Techniques Appliquées "ISTA-Kinshasa", Sustainable Life Cycle Management of Sedimentary Basins for Critical Minerals and Hydrogen in Eastern DRC <b>(ONLINE)</b></p> <p>3. Ms Lorna Njenga, Murdoch University, Utilization of copper slag and Metakaolin in Geopolymer concrete synthesis <b>(ONLINE)</b></p>	<p>2.Miss Dahee Kim, Incheon National University, Consequence Analysis-Based Safety Strategies for Liquefied Ammonia Storage in Ammonia Co-Firing Power Plants.</p> <p>3. Mr Greg Blasiak, Green 360 Technologies, Decarbonising Cement: Kaolin Backfill By-Product (KBB) for a sustainable and standards-ready SCM.</p>	<p>2. Mr Muhammad Zeeshan Tariq, Edith Cowan University Joondalup, Perth, Optimal Energy Management of a Stand-Alone Utility-Scale Hybrid Power Plant. <b>(ONLINE)</b></p> <p>3.Mr Arman Safaei, Murdoch University, A Platform for Long-Term Renewable Energy Planning in Southwest Interconnected System of Western Australia.</p>	<p>2.Prof I Ketut Aria Pria Utama, Institut Teknologi Sepuluh Nopember, Wave-Induced Motion in Modularized Catamaran FPV System with Hinged Connections under Catenary Station-keeping condition</p> <p>3.Mrs Amitha Varghese, Murdoch University, Developing a database of critical mineral tailings that supports circularity.</p>	<p>2.Mrs Rokhana Yasmin, Central Queensland University, Optimal Sizing of Hybrid PV–Battery–Electrolyser–Fuel Cell Systems for Cost-Effective Hydrogen in Remote Microgrids. <b>(ONLINE)</b></p> <p>3. Mr. Samy Fahmy, Mubadala Energy, Hybrid Hydrogen Infrastructure: A Review of Technical, Economic, and Environmental Feasibility</p>	<p>Prof Martin Anda</p>
<p>12:30pm</p>	<p>Lunch Break</p>					

<p><b>1.30 – 2.30pm</b></p>	<p><b>Common Session 2: Rosemary van dan Berg Room level 4 Boola Katitjin (360.4.003)</b></p> <p><b>Topic: Policy, Finance, and Governance for Net Zero</b></p> <p><b>Chair: Prof Treena Burgess - Executive Director, Harry Butler Institute, Murdoch University</b></p> <ol style="list-style-type: none"> <li>1. Prof. Dr. Derya Oktay, Fenerbahçe University, The Quest for Genuine Green Architecture in Contemporary Developments.</li> <li>2. Hon. Sophie McNeill , MLC, Member of Legislative Council, WA's LNG exports: the myth of Australian gas to decarbonise Asialiu</li> <li>3. Mr. Max Van Someren, Bivios, Quantifying the economic and emissions case for renewable energy industrial precincts.</li> </ol>				<p><b>Aboriginal Session 2 (360.4.020)</b></p> <p><b>Theme : Energy for Communities</b></p> <p><b>Chairperson: Assoc.Prof Martin Anda</b></p> <p><b>Resource Person: Tashi Zaid</b></p> <p><b>Name of the Presenter: Prof. Chris Lund</b></p>	<p><b>Click on 'Workshop1' for details</b></p> <p><b><a href="#">Workshop 1</a> (1:30 – 5:30pm) (360.4.031)</b></p> <p><b>Topic: Hydrogen Safety (Dr Furat Dawood)</b></p> <p><b>Workshop Program (3.5 hours):</b></p> <p><b>Hydrogen Properties and Safe Handling (60 min)</b></p>
<p><b>2:30 - 3.30pm</b></p>	<p><b>Parallel Session 2.1 (360.4.003)</b></p> <p><b>Topic: Policy, Finance</b></p> <p><b>Chair:Hon.Dr Brad Pettitt MLC, Member of Legislative Council.</b></p> <p><b>1. A/Prof Alexandr Akimov, Griffith University,</b></p>	<p><b>Parallel session 2.2 (360.4.021)</b></p> <p><b>Topic: Governance</b></p> <p><b>Chair: Hon. Sophie McNeill MLC , Member of Legislative Council.</b></p> <p><b>1.Prof Sven Teske, UTS,Australia’s role in the ‘Global Stocktake’ and to limit global</b></p>	<p><b>Parallel session 2.3 (360.4.022)</b></p> <p><b>Topic: Innovations for Net Zero</b></p> <p><b>Chair: Prof. Ray Wills, UWA</b></p> <p><b>1.Mr Abdul Wachid Syamoni, Indonesia</b></p>	<p><b>Parallel session 2.4 (360.4.023)</b></p> <p><b>Topic: Built Environment</b></p> <p><b>Chair: Prof. Dr. Derya Oktay, Fenerbahçe University</b></p> <p><b>1.Mrs Marta Galisteo-Garrido, Universitat Politècnica De Catalunya (UPC) NIF: Q0818003F, Life-cycle carbon optimisation in</b></p>	<p><b>Aboriginal Session 3 (360.4.020)</b></p> <p><b>Theme: Energy Through Recycled Solar Panel</b></p> <p><b>Chairperson: Dr. Mara West</b></p> <p><b>Resource Person: Saladin Miftahul</b></p> <p><b>Name of the Presenter: Ms. Vesna Sampson &amp; Prof. Roz Walker</b></p>	

	<p>Effectiveness of Flexible Demand Strategies: Evidence from Commercial and Industrial Customers.</p> <p>2 Mr Ramith Wimalaratna, Griffith University, Do residential households respond to dynamic price signals? Evidence from Australia.</p> <p>3.Mr Hemlal Bhattarai, Edith Cowan University, Joondalup, Virtual Power Plants for Clean Energy Transition: Policy, Regulation, and Practice in Australia and Globally.</p>	<p>temperature rise to +1.5 °C.</p> <p>2.Dr Peyman Akhgar, Griffith University, Off-grid Households in Queensland: Technologies, Intentions and Policy Implications.(ONLINE)</p> <p>3.Mrs Dannya Maharani Putri Utami, National Research and Innovation Agency (BRIN), Towards a Just Transition: Renewable Energy for Fisheries-Based Rural Communities in Indonesia.(ONLINE)</p> <p>4.Dr Natchpong Hatti Dr. Surasak Nuilers, National Electronics And Computer Technology</p>	<p>National Research and Innovation Agency, A Systematic Literature Review of the Indonesia New Capital City for Electricity Market Transformation.(ONLINE)</p> <p>2.Dr Hugh Finn, Curtin University, What is a 'Net Zero' Precinct?</p> <p>3.Dr Olumuyiwa Yinus Odufuwa, Central University Of Technology Free State, Hybrid Desiccant-</p>	<p>retrofitting under future conditions. A case study in the Mediterranean climate (ONLINE)</p> <p>2. Dr Raed Altalebi, Dcec, Ltd,Key &amp; Sub Assessment Factors of Sustainability Verification System in Buildings A Local Approach</p> <p>3.Dr Amin Mirabbasi, Murdoch University, Enhancing Thermal Efficiency in Prefabricated Buildings with Microalgae Photobioreactors: A Case Study from Perth, Australia</p> <p>4. Dr Puput Risdanareni, Universitas Negeri Malang, Performance of Fly Ash-Based Geopolymer Self-Healing Repair Mortar(ONLINE)</p>		<p>Workshop 1 continues</p>
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	<p>4.Mr Ro Richardson, Department Of Water And Environmental Regulation, Selecting Winners: Optimising Clean Energy Funding Decisions</p>	<p>Center,Energy Sharing Solution for Decentralized Off-Grid Power Systems (ONLINE)</p>	<p>Enhanced Evaporative Cooler with Integrated Ice Storage for Peak Shifting and Humidity Management (ONLINE)</p> <p>4. Mr Patrick Bendall, Curtin University, Prospects for Net-Zero Urban Regeneration : a policy review for Australian cities.</p>			
<p>3:30 - 4:00pm</p>	<p>Coffee break</p>					

<p>4:00 - 5:00pm</p>	<p><b>Common Session 3: Rosemary van dan Berg Room level 4 Boola Katitjin (360.4.003)</b></p> <p><b>Topic: Sustainability, Gender, Equity, and Inclusive Transition</b></p> <p><b>Chair: Dr Mara West, An Yamatji Elder and the Operations Manager of Kulunga Aboriginal Unit at The Kids Research Institute, Western Australia.</b></p> <ol style="list-style-type: none"> <li>1. Mr. Tony Book, <i>WREN Council Member</i>, Efficiency in energy management in domestic housing</li> <li>2. Professor Josh Byrne AM, <i>Dean Sustainable Futures, Curtin University</i>, Pathways to Net Zero Precincts</li> <li>3. Assoc. Prof Amina Batagarawa, <i>Centre for Clean Energy and Climate Change, Baze University, Abuja, Nigeria</i>, Fueling the future for rural Africa: A comparative study of clean cookstoves and anaerobic digestion.</li> </ol>				<p>Click on 'Workshop 7' for details</p> <p><a href="#">Workshop 7</a> (4 – 5:30pm) (360.4.023)</p> <p>Topic: Focus Group Validation of a Social Acceptance Model for Renewable Energy (Ms.Tanvi Bhatia)</p>	<p>Workshop 1 continues (360.4.031)</p> <p>Hydrogen Safety (Dr Furat Dawood)</p>
<p>5:00 - 6:00pm</p>	<p><b>Parallel Session 3.1 (360.4.003)</b></p> <p><b>Topic: Transition</b> <b>Chair: Prof. Frank Jotzo, Australian National University</b></p> <ol style="list-style-type: none"> <li>1. Miss Manisha Drall, Indian Institute of Technology Kanpur, India &amp; La Trobe University, Australia, Niche Innovations and Energy Justice: Navigating India's Transition to Electric Mobility</li> <li>2. Mr Moch Arief Albachrony,</li> </ol>	<p><b>Parallel session 3. 2 (360.4.021)</b></p> <p><b>Topic: Gender , Equity &amp; Rural communities</b></p> <p><b>Chair: A/Prof Amina Batagarawa, Baze University, Abuja, Nigeria</b></p> <ol style="list-style-type: none"> <li>1. Prof Apriani Dorkas Rambu Atahau, Universitas Kristen Satya Wacana, Integrating Social Dimensions in Renewable Energy Transition of Rural Area: Potential impact on Women Empowerment</li> </ol>	<p><b>Parallel session 3.3 (360.4.022)</b></p> <p><b>Topic: Waste to Energy</b></p> <p><b>Chair: Prof. Josh Byrne AM, Dean Sustainable Futures, Curtin University</b></p> <ol style="list-style-type: none"> <li>1. Mr Audry Sage Ndenzako, EcoWaste Solutions Burundi, Waste-to-Energy for Sustainable Development In Burundi</li> <li>2. Ms Liz Baggetta</li> </ol>	<p><b>Parallel Session 3.4 (360.4.020)</b></p> <p><b>Topic: Decarbonisation &amp; Hydropower</b></p> <p><b>Chairperson: Prof. Mohammad Hossain, UWA</b></p> <ol style="list-style-type: none"> <li>1. Dr Pastora María Bello Bugallo &amp; Dr Mohammad Bany Issa, Universidade De Santiago De Compostela, Electricity Blackouts: Challenges, Causes, and Solutions (the Case of Spain)</li> </ol>		

	<p>Indonesia National Research Agency (BRIN)) Virtual Power Plant Coordination and Local Aggregator Modelling towards Indonesia's Electricity Market Transformation (<b>ONLINE</b>)</p> <p>3.Mr Danial Esfandiary Abdolmaleki, Universidade De Santiago De Compostela, A Multidimensional Assessment of Europe's Energy Transition and Its Implications for Energy Security (<b>ONLINE</b>)</p> <p>4.Dr Kanokvate Tungpimolrut National Electronics And Computer Technology Center (NECTEC), Enhancing Torque Performance of Switched Reluctance Motor for Solar Pump Systems</p>	<p>2.Mr. Hemayet Hossain, Risda-Bangladesh, Sustainability, Gender, Equity, and Inclusive Transition in Bangladesh</p> <p>3. Mrs Eka Nurdiana, National Research and Innovation Agency, Indonesia, Multi-criteria Site Selection for Rural De-dieselization in Indonesia: Integrating AHP and LINMA (<b>ONLINE</b>)</p> <p>4. Mr. Jabez Wilson, Endgame Analytics, Resilience planning – a case for co-optimisation across gas and electricity</p>	<p>Synergy, People Power co-creating Just Transitions That Leave No One Behind: Insights from Collie, Western Australia.</p> <p>3.Mr Cendekia Raihan Albairuni, The University Of Melbourne, Refrming Indonesia's Renewable Investment Framework through Capacity-Based Mechanisms: Lessons from Australia's CIS. (<b>ONLINE</b>)</p> <p>4.Dr Mohammad Bany Issa &amp; Dr Pastora María Bello Bugallo, Philadelphia University, Advanced Single phase PLL for Power Electronics Inverters: renewable and non-renewable Distributed Generators (<b>ONLINE</b>)</p>	<p>2.Prof Kanzumba Kusakana, Central University Of Technology, Free State, Optimising Tailrace Hydrokinetic Integration for Enhanced Hydropower Performance</p> <p>3. Dr Khotimatul Fauziah, National Research and Innovation Agency (BRIN), Technical and economic feasibility of hydrogen utilization to replace diesel in remote area: decarbonization scenario. (<b>ONLINE</b>)</p> <p>4. Mr.Zaid Ahmad Shaish Alnessir, Murdoch University Low-Carbon Geopolymer Concrete for Construction Industry Decarbonisation Using Red Mud and Recycled Aggregates</p>	<p>Workshop 7 continues until 5:30pm</p> <p>Workshop 7 continues until 5:30pm</p>	<p>Workshop 7 continues until 5:30pm</p>
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Tuesday 10th February

World Renewable Energy Congress XXV – Murdoch University, Perth, 8 -13 February 2026

<p>8:30 – 9:30 am</p>	<p><b>Common Session 4: Rosemary van dan Berg Room level 4 Boola Katitjin (360.4.003)</b></p> <p><b>Topic: Artificial Intelligence &amp; Digital Transformation of Renewable Energy</b>  <b>Chair: Mr Tony Book, WREN Council Member.</b></p> <ol style="list-style-type: none"> <li>1. Dr Nugroho Adi Sasongko, <i>Divisional Head, National Research and Innovation Agency (BRIN), Indonesia</i>, Reframing Innovation Investment from Engineering Constraints to Market-Oriented Valuation of Intangible Assets: A Systems Framework for Renewable Energy and Industrial Downstreaming in Emerging Economies</li> <li>2. Prof Mike Johns, <i>The University of Western Australia (UWA)</i>, Modelling Hydrogen Storage Requirements to Balance the Future Western Australian Grid</li> <li>3. Prof. John Boland, <i>Adelaide University</i>, comparing Time Series and Machine Learning Tools for Short Term Forecasting for Renewable Energy</li> </ol>				<p>Click on 'Workshop 2' for details</p> <p><a href="#">Workshop 2</a> (8:30 – 12:30pm) (360.4.023)</p> <p>Topic: Think global—Act local (Dr Sven Teske)</p>	<p>Click on 'Workshop 3' for details</p> <p><a href="#">Workshop 3</a> (8:30 – 12:30pm) (360.4.031)</p> <p>Topic: Energy Transitions (Dr Charles Roche)</p> <p>A 'Just Energy Transition' requires more than renewable technologies. It also demands a shift in thinking about how we understand communities, including: justice and equity, sustainability, sovereignty, and empowerment, all of which impact on local and global energy security. Challenged by the reality of climate change</p>
<p>9:30 – 10:30</p>	<p><b>Parallel Session 4.1 (360.4.003)</b></p> <p><b>Topic: Robotic System</b></p> <p><b>Chair: Assoc. Prof. Alexandr Akimov, Griffith University</b></p> <p>1. Mr Maheswaran Arumugam, Murdoch University, Introduction of Robotic In Manufacturing of Low Carbon Concrete for Sustainable Cities</p>	<p><b>Parallel session 4.2 (360.4.021)</b></p> <p><b>Topic: AI for Energy</b></p> <p><b>Chair: Assoc. Prof Himanshu Agrawal, Curtin University</b></p> <p>1. Mr Dionysius Aldion Renata, National Research and Innovation Agency (BRIN), Energy Monitoring System Integrating NILM and ILM with Machine Learning for Real-Time</p>	<p><b>Parallel session 4.3 (360.4.022)</b></p> <p><b>Topic: Digital Transformation</b></p> <p><b>Chair: Prof. John Boland, University of South Australia</b></p> <p>1. Mr Ammar Elnosh, Murdoch University, Power Prediction and Fault Detection Simulation Study for a Photovoltaic Digital Twin Application</p> <p>2. Mr Abdus Samad Azad, Central Queensland University,</p>	<p><b>Aboriginal Session 4 (360.4.020)</b></p> <p><b>Theme : The clean energy transition in Australia cannot and will not happen without First Nations - Moving Beyond Compliance Towards Meaningful Engagement, Strong Partnerships and Mutual Benefit</b></p>		

	<p>2.Mr Tossapon Katongtung, Chiang Mai University, Predicting biomass hydrothermal liquefaction with physics informed machine learning approach</p> <p>3.Mr Yadukrishnan Satheesan, Australian Maritime College, Cluster-Based Machine Learning Approach for Pitting Corrosion Analysis in Offshore Renewable Energy Structures.</p> <p>4. Miss Yujie Zhu, University of Newcastle, Positive Media Coverage and ESG Performance: Symbolic Legitimacy or Substantive Improvement</p>	<p>Load Status Detection <b>(ONLINE)</b></p> <p>2.Miss Francis Benitez, Universidad Católica de Cuenca, Hybrid Physics-Informed Residual Algorithm for Accurate and Interpretable Photovoltaic Power Prediction. <b>(ONLINE)</b></p> <p>3.Mr Tolulope Ekunseitan, Central University Of Technology Free State , Physics-Regularized Neural Surrogates for Solar-Powered Organic Rankine Cogeneration: Real-Weather Forcing with Exergy-Aware Learning.</p> <p>4.Mr Vijith Kartha, Rprocess Outsourcing Services Pvt Ltd, Uncertainty Quantification (UQ) for AI-Driven Predictive Maintenance of Large-Scale Solar PV and Battery Storage</p>	<p>Techno-Economic Evaluation of a Solar–Wind–Battery Hybrid Energy System for Reliable Renewable Power Supply <b>(ONLINE)</b></p> <p>3 Mr Ahmed Bilal Shahulhameed, King Fahd University Of Petroleum &amp; Minerals, Enhancement in Short-term Photovoltaic Power Forecasting based on Signal Decomposition and Machine Learning Optimization</p> <p>4. Prof. Nakorn Tippayawong, Chiang Mai University, Pyrolysis of torrefied palm kernel shells in a high throughput ablative reactor and its economics.</p>	<p>with Sustainable Supported Clean Energy Projects - Building Capacity of Proponents Toolkit.</p> <p>Chairperson: Ms.Cat Holland</p> <p>Resource Person: Jia Ammar</p> <p>Name of the Presenter: Ms.Rebecca (Bec) Halliday</p>	<p><b>Workshop 2 continues</b></p>	<p>and increasing energy consumption exacerbated by AI we need to rethink our relationship with energy. This workshop, with presentations and a participatory panel discussion, will contribute to a greater shared understanding of a just energy transition that goes beyond decarbonisation and measuring emissions.</p>
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10:30	<b>Morning Refreshments – Poster presenters are advice to be at their poster for participants to ask questions and share the knowledge</b>				
11.00 – 12.00pm	<b>Common Session 5</b> <b>Topic: Energy Storage and Grid Resilience</b> <b>Chair: Ms Colleen Yates, CEO Regional Development Australia, Perth</b>  1. Prof. Ananda Amarasekara, <i>Prairie View A &amp; M University</i> , Hydroxy-acid leaching of metals from spent Li-ion battery coatings and direct regeneration of cathode material 2. Prof. Ishihara Tatsumi, <i>Kyushu University</i> , Efficient green hydrogen production with solid oxide cells (SORCs) for effective storage of renewable energy 3. Prof Hui Tong Chua, <i>University of Western Australia</i> , Low-Grade-Heat Geothermal Applications in Western Australia			<b>Aboriginal Session 5 (360.4.020)</b>  <b>Theme:</b> <b>Decarbonising Heavy Industry: First Mining Truck Electrification Project/Presentation and Interactive Discussion</b>	
12.00– 1.00pm	<b>Parallel Session 5:1 (360.4.003)</b>  <b>Topic: Innovations for Net Zero</b>  <b>Chair: Prof. Ananda Amarasekara, Prairie View A &amp; M University</b>  1. Nikhil Jayaraj, Curtin University, Converging Technologies for a Low-Carbon Future: EVs, Solar, and Storage  2. Ms Madison Zegeer, University of Canterbury, Modelling Long-Duration Energy	<b>Parallel session 5:2 (360.4.021)</b>  <b>Topic: Grid reliance</b>  <b>Chair: Prof. Tatsumi Ishihara, Kyushu University</b>  1. Mr Taimoor Muzaffar Gondal, Edith Cowan University, Second-Order Sliding-Mode Observer for DC-Link Voltage Regulation in Grid-tied Inverters under Unbalanced Grid Conditions  2. Mr Craig Carter, Murdoch University,	<b>Parallel session 5: 3 (360.4.022)</b>  <b>Topic: Energy Storage</b>  <b>Chair: Prof. Mike Johns, University of Western Australia</b>  1. Prof A. K. Thakur, Indian Institute of Technology (IIT) Patna, Microwave Processed Graphene Compositions for Energy Storage Applications.  2. Mr Fawas Olaosebikan; Mr Joseph Eminsang Conduah, Central University Of Technology Free State, Machine learning platform, Internal and External Melt Ice	<b>Chairperson:</b> <b>Assoc. Prof Martin Anda</b>  <b>Resource Person:</b> <b>Francois Loose/ Piumal Jawad</b>  <b>Name of the Presenter: Clayton Franklin - EPCA</b>	<b>Workshop 2 continues</b>
				<b>Workshop 3 Continues</b>	

	<p><b>Storage Options for Renewable Grids Under Climate Uncertainty</b></p> <p><b>3. Mr Donald Azuatalam, University Of Sydney Electricity infrastructure resilience: A review of strategies and measures for mitigating bushfire, extreme weather risks.(ONLINE)</b></p> <p><b>4.A/Prof Januarti Jaya Ekaputri Institut Teknologi Sepuluh Nopember,Decarbonizing 3D Concrete Printing: Optimized Geopolymer Mix Using Calcined Sidoarjo Mud for Sustainable Industry Transition (ONLINE)</b></p>	<p><b>Evaluating Energy Storage on the Rottneest Island Wind/Solar/Diesel Microgrid using MS-Excel based Energy Flow Analysis.</b></p> <p><b>3. Dr Sheikh Azid, Murdoch University, Fractional Pkeihl Controller for LCL filter</b></p> <p><b>4. Dr Minh-Chau Dinh, Changwon National University, HILS-Based Advanced Design of Protection Schemes for MVDC Systems in Renewable Energy Source Integration</b></p>	<p><b>Thermal Energy Storage System predictive model</b></p> <p><b>3.Mr Lebohang Alex Nthama, Central University Of Technology, Free State, South Africa (ONLINE), An Effectiveness Number of-Transfer-Units Model for the Discharge Cycle of an Ice-on-Coil Thermal Storage Tank</b></p> <p><b>4.Mr SEUNG HO LEE. University of South Australia,Maximizing Heating Systems Efficiency with PCM Thermal Batteries through Wasted Heat Recovery</b></p>		<p><b>Workshop 2 continues until 12:30pm</b></p>	<p><b>Workshop 3 continues until 12:30pm</b></p>
1.00pm	Lunch Break					

Field Visit

<p>1:30pm</p>	<p>This is a free afternoon. Participants can organise their sightseeing. Those who've registered for dinner can join at 6:30 pm at Fremantle Sailing Club (151 Marine Terrace, Fremantle WA).</p> <p>For those who choose the field visit coach leaves from the Discovery way Bus stop in front of Boola Katijin for the Field Visit.</p> <p><b>Field Visit 1 – Visit to Industries (50 People maximum)</b></p> <ul style="list-style-type: none"> <li>• 1.30 pm - Discovery way Bus stop in front of Boola Katitjin, Murdoch University</li> <li>• 1.40 - 2.40pm - Magellan Power, Bibra Lake (Masoud Abshar) 64 Bushland Ridge, Bibra Lake, 6163, Nicole Arkell, Front desk Receptionist , P: 08 9434 6621   Ext 108. E: reception@magellanpower.com.au</li> <li>• 3.15 - 4.00pm - Carbon 280 - Henderson (Adriana) ,10 Ward Rd, East Rockingham, Western Australia 6168</li> <li>• 4.30- 5.30pm - Carnegie Clean Energy Limited; 21 North Mole Drive, North Fremantle Deone Denner, Office Co-Ordinator,+61 8 6168 8400. e: ddenner@carnegiece.com</li> <li>• 6.00 pm - Discovery Way,Boola Katitjin, Murdoch University to end the field visits</li> <li>• 6.10 pm - Pick people up for dinner at 6.10 pm. Only those with dinner tickets will be allowed on the bus. We need to reach the Fremantle Sailing Club(151 Marine Terrace Fremantle WA 6160) by 6.20 pm to start at 6.30 pm.</li> </ul> <p><b>Note: Delegates must wear long sleeve shirts, long trousers and closed-in shoes, otherwise they will not be allowed to visit the facilities. Please take a water bottle as it's very hot.</b></p> <p><b>Field visit 2 - Electric Power Conversions Australia (EPCA) (18 people maximum)</b></p> <p>Organizers: Assoc. Prof. Martin Anda &amp; Mr Fred Spring</p> <p>Date: Tuesday 10<sup>th</sup> February</p> <p>Conference delegates can visit 3 sites east of Perth city focused on battery energy storage. First, Centurion electric truck recharging, second, EPCA diesel mining truck conversions and thirdly, solar microgrid power stations factory near the airport.</p> <p>Electric Power Conversions Australia (EPCA) at their workshop at 3 Central Avenue, Hazelmere WA to experience a tour led by Clayton Franklin, a proud Wunumara Aboriginal man and the company's founder. During the tour of the active workshop floor, delegates will see firsthand how EPCA retrofits massive 100-tonne diesel mining trucks, such as the CAT 777D, into full battery-electric vehicles by replacing traditional diesel</p>
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	<p>engines with high-torque electric powertrains. Participants will learn about the engineering behind these systems—which can reuse up to 80% of existing truck components—and explore how they eliminate over 1,300 tonnes of CO2 emissions per year while offering faster acceleration and superior operational efficiency.</p> <p>1:00 pm - Discovery way Bus stop in front of Boola Katitjin, Murdoch University</p> <p>1.30 pm – Visit Centurion Transort (6 Mackay St, Kewdale WA 6105)</p> <p>2:30 pm – Visit EPCA (3 Central Ave, Hazelmere WA 6055)</p> <p>3.30 pm – Visit Microgrid Systems (Unit B1/20 Tarlton Cres, Perth Airport WA)</p> <p>4:30 pm – Return to Murdoch</p> <p>5:30 pm – Reach Murdoch</p> <p>6.10 pm - Pick people up for dinner at 6.10 pm.</p> <p><b>Note: Delegates must wear long sleeve shirts, long trousers and closed-in shoes, otherwise they will not be allowed to visit the facilities. Please take a water bottle as it's very hot.</b></p> <p>Only those with dinner tickets will be allowed on the bus.</p> <p>We need to reach the Fremantle Sailing Club (151 Marine Terrace Fremantle WA 6160) by 6.20 pm to start at 6.30 pm</p>
6:30pm to 9:00pm	Dinner Fremantle Sailing club, 151 Marine Terrace Fremantle WA 6160, Ph. 08 9435 8822

## Wednesday 11th February

8:30 – 9:30am	<p>Common Session 6: Rosemary van dan Berg Room level 4 Boola Katitjin (360.4.003)</p> <p>Topic: Renewable Energy Technologies and Innovation</p> <p>Chair: Prof Sven Teske, <i>University of Technology Sydney</i></p>	<p><a href="#">Click on 'Workshop 6' for details</a></p> <p><a href="#">Workshop 6</a> (8:30 am– 2:30pm) (360.4.031)</p>	<p><a href="#">Click on 'Workshop 4' for details</a></p> <p><a href="#">Workshop 4</a> (8:30 – 12:30pm) (360.4.023)</p>
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	<ol style="list-style-type: none"> <li>1. A/Prof. Ahamed Zahedi, <i>James Cook University</i>, Australia's high potential in producing Green Hydrogen to make it an export product.</li> <li>2. Mr. Domanic Da Cruz, <i>Zenith Energy</i>, Turning Obligation into Opportunity on the Path to Net Zero.</li> <li>3. 4.Prof. Liwei Wang, <i>Shanghai Jiao Tong University</i>, Functional Membrane Design for Eutectic-Based Flow Batteries (<b>ONLINE</b>)</li> </ol>				<p>Topic: Australia-Japan Network for Energy Transition &amp; Critical Materials (A Prof Hussein Znad)</p>	<p>Topic: Are we ready to take the plunge? The status of Offshore Wind Energy industry and research in Australia (Assoc. Prof Jonathan Whale)</p>
9:30 – 10:30	<p>Parallel Session 6.1 (360.4.003)</p> <p>Topic: Solar Thermal</p> <p>Chair: Prof. Wasim Saman, Adelaide University</p> <p>1.Mr Muhammad Farooq, Korea Institute Of Machinery &amp; Materials (KIMM), Experimental Study on Leakage Detection for Solar Thermal Systems Using Pressure Indices.</p> <p>2.Mr Nandan Kumar, Shiv Nadar Institution of</p>	<p>Parallel Session 6.2 (360.4.021)</p> <p>Topic: Solar PV &amp; Grid Resilience</p> <p>Chair: Prof Jonathan Wong, Dongguan University of Technology</p> <p>1.Prof Dariusz Heim, Lodz University of Technology, A research framework for future product development - ActiVer, a novel prefabricated BIPV system</p> <p>2.Dr Dominika Knera Lodz, University Of Technology, The impact of a thin ventilated air gap on</p>	<p>Parallel session 6.3 (360.4.022)</p> <p>Topic: Green Hydrogen</p> <p>Chair: Mr.David Cavanagh, HSA WA Chapter Chair and MD Integrated Energy.</p> <p>1.Mr. Muhammad, IUT Towards Net Zero: Policy and Financial Frameworks for Hydrogen Development in Bangladesh</p> <p>2.Monsieur Nathan Tuzolana, Insitute Superieur du Batiment et travaux Publics Geo-integrated renewable hydrogen system to decarbonize mining operations in</p>	<p>Aboriginal Session 6 (360.4.020)</p> <p>Theme: "Hot-swappable Plug-and-Play Stack Modules for Hydrogen-Enabled Renewable Power Systems: A Practical Path to Overcome the Maintenance Bottleneck."</p> <p>Chairperson: Dr. Mara West</p> <p>Resource Persons: Shariq</p> <p>Name of the Presenter: Dr.Furat Dawood</p>	<p>This half-day workshop explores the exciting potential of offshore wind in Australia. The presentations will document the story of offshore wind in Australia, share lessons learnt from the oil and gas industry in the North Sea transition to offshore wind and will showcase some of the research that is currently being undertaken in Australia. The panel will discuss the status of the Australian Offshore Wind Industry, industry's needs over the next 5-10 years and how</p>	

	<p>Eminence, A computational sensitivity study of solar-driven conical desalination system for affordable water solution.</p> <p>3.Dr Minh-Chau Dinh, Changwon National University, HILS-Based Advanced Design of Protection Schemes for MVDC Systems in Renewable Energy Source Integration</p> <p>4.Dr Anna Wieprzkowicz, Lodz University Of Technology, Long-term testing of the En-ActivETICS - directions for the development of the novel ActiVer system</p>	<p>the ActiVer system performance</p> <p>3.Mrs Tashi Wangmo, Murdoch University, Grid Resilience &amp; Adaptation</p> <p>4.Dr RUCHAO PUPADUBSIN National Electronics and Computer Technology Center, Minimizing Vibrations in the SRM-Driven Solar Water Pump</p>	<p>Eastern DRC's Copperbelt mineral region</p> <p>3. Prof. Medhat Nemitallah King Fahd University Of Petroleum &amp; Minerals, Experimental Investigation of Hydrogen–Ethanol Enrichment Effects on Gasoline Engine Combustion, Performance, and Emissions.</p>			<p>research can grow to meet these needs.</p>
10:30	Morning Refreshments – <b>Poster presenters are advice to be at their poster for participants to ask questions and share the knowledge</b>					
10:50–11.40	Common Session 7: Rosemary van dan Berg Room level 4 Boola Katitjin (360.4.003)					

	<p><b>Topic: Energy Equity &amp; Justice and Bioenergy</b></p> <p><b>Chair: Dr Nugroho Adi Sasongko, <i>Chiang Mai University</i></b></p> <ol style="list-style-type: none"> <li><b>1. Prof Jonathan Wong, <i>Research Centre for Eco-environmental Engineering, Dongguan University of Technology</i>, Carbon Energy Cycle for Sustainable Waste Biomass Management for Value-added Bioenergy and Bioproducts.</b></li> <li><b>2. Assoc. Prof Acep Purqon, <i>Murdoch University</i>, Sustainable Agrivoltaics Systems for Rural and Remote Islands in Eastern Indonesia .</b></li> <li><b>3. Mr. Vitaly Shestakov, <i>SATEC (Australia) Pty Ltd</i> ,The global transition toward renewable generation, electric mobility, and large-scale Battery Energy Storage Systems (BESS).</b></li> </ol>				<p><b>Workshop 6 continues</b></p>	<p><b>Workshop 4 continues</b></p>
<p><b>11:40 – 12:30</b></p>	<p><b>Parallel Session 7.1 (360.4.003)</b></p> <p><b>Topic: Energy Equity &amp; Transport</b></p> <p><b>Chair: Prof. Hui Tong Chua, University of Western Australia</b></p> <p><b>1.Dr Shashi Persaud, Southern Alberta Institute Of Technology Advancing Energy and Educational Equity in a Last-Mile Andean Community</b></p>	<p><b>Parallel session 7.2 (360.4.021)</b></p> <p><b>Topic: Bioenergy</b></p> <p><b>Chair: Prof. Uroš Stritih, University of Ljubljana, Solvenia</b></p> <p><b>1.Mr Shariq Farhan Elahi, Curtin University Microwave-Assisted Heterogeneous Catalysis for Butyl Butyrate Production</b></p> <p><b>2. Mrs Sari Khairudin, Griffith University Assessment of regional and national biomass</b></p>	<p><b>Parallel session 7.3 (360.4.022)</b></p> <p><b>Topic: Waste and Bio-oil Energy</b></p> <p><b>Chair:Mr. Domanica Da Cruz, Zenith Energy</b></p> <p><b>1.Prof Khanji Harijan Mehran University of Engineering and Technology, Jamshoro Multi-Objective Optimization and Economic Analysis of Integrated PV/T-DCMD System for Sustainable Power and Freshwater Generation</b></p>	<p><b>Aboriginal Session 7 (360.4.020)</b></p> <p><b>Theme : Enabling outcomes through truth telling: lessons learned from water and energy projects</b></p> <p><b>Chairperson: Ms. Cat Holland</b></p> <p><b>Resource Persons: Atik</b></p>		

	<p>2. Dr Gloria Odo Murdoch University, Challenges and opportunities of rural electrification in Australia and Sub-Saharan Africa</p> <p>3. Miss Jingyi Liu Harbin Institute Of Technology, Data-Driven Prediction of Operational Carbon in Cold-Climate Railway Halls' (Presentation pre- recorded)</p> <p>4. Miss Elisabeth Hale, The University Of Melbourne, Frequency Control in Transition: Evaluating the Adequacy of FCAS Under Declining Inertia in the NEM (ONLINE)</p>	<p>potential for decarbonising the industry sector in Indonesia</p> <p>3. 教授 Chiu-hsuan Lee, Chaoyang University Of Technology Carbonization of Waste Biomass and Applications</p> <p>4. Mr Muhammed Atikul Haque, Murdoch University, Net-Zero Pathways in Broadacre Agriculture: Co-Benefits of integrating Biochar, compost and afforestation</p>	<p>2. Mr Matthew Percival, Murdoch University, Murray Goulburn (MG) Biogas Engine Project - Case Study</p> <p>3. Dr Ravishankar Sathyamurthy, King Fahd University Of Petroleum &amp; Minerals, Effect of hydrogen on diesel engine fuelled using corn oil Performance, emission and combustion characteristics</p> <p>4. Dr Régis Rathmann, Federal University Of Rio De Janeiro, Environmental sustainability of the soy-based biofuel production policy in Brazil (ONLINE)</p>	<p>Name of the Presenter: Mr. Tommy Hicks</p>	<p>Workshop 6 continues</p>	<p>Workshop 4 continues until 12:30pm</p>
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12:30 – 1:30		Lunch					
1.30 – 2.30pm	<p><b>Common Session 8: Rosemary van dan Berg Room (360.4.003)</b></p> <p><b>Topic: Sustainable and Renewable Energy for Climate Adaptation</b></p> <p><b>Chair: Dr Sangita Bista, Horizon Power</b></p> <ol style="list-style-type: none"> <li>1. Mr. Mark Rheinlander, <i>Carbon 280</i>, Hydrilyte: A Reversible System for Hydrogen Storage, Purification, and Transport</li> <li>2. Dr. Wal James, <i>Curtin and Murdoch Universities</i>, My EV Experience</li> <li>3. Prof. Wasim Saman, Emeritus Professor, <i>Adelaide University, Adelaide</i>, Energy Storage: Beyond Electric Batteries</li> </ol>						<p>Click on 'Workshop 5 for details</p> <p><a href="#">Workshop 5</a> (1:30 – 5:30pm) (360.4.023)</p> <p>Topic: Biofuel (Dr Simon Dawkins)</p> <p>The Transition to Sustainable Low carbon Liquid Fuel A workshop brought to you by the Oil Mallee Association and BioResourcingWA Speakers <b>POLICY AND PRACTICE</b> 1:00 Kerrie House, Program Director – Carbon Farming and Bioenergy, Department of Primary Industry and Regional Development Title: WA Advanced Biofuel Strategy and national policy landscape.</p>
2:30 - 3.30pm	<p><b>Parallel Session 8.1 (360.4.003)</b></p> <p><b>Topic: Renewable Systems</b></p> <p><b>Chair: Dr. Wal James, Curtin University</b></p> <p>1.Mr. Fraser Maywood, Sustainable Energy Now (SEN),WA Southwest Interconnected System Energy</p>	<p><b>Parallel session 8.2 (360.4.021)</b></p> <p><b>Topic:renewable &amp; Sustainable Energy</b></p> <p><b>Chair: Mr.Mark Rheinlander, Carbon 280</b></p> <p>1.Mr Piumal Amarakoon, Murdoch University, Material Performance Of Hemp Insulation Under Extreme Climatic Conditions In</p>	<p><b>Parallel session 8.3 (360.4.022)</b></p> <p><b>Topic: Offshore Wind Energy</b></p> <p><b>Chair: Prof.Jonathan Whale, Murdoch University</b></p> <p>1.Mr Qinming Wu, UWA, A better model for nonlinear wave loads on monopiles supporting</p>	<p><b>Aboriginal Session 8 (360.4.020)</b></p> <p><b>Theme: Panel Discussion of Presenters, Community, Aboriginal business and Congress delegates</b></p> <p><b>Chairperson : Dr. Mara West</b></p> <p><b>Resource Person : Dr. Biji Kurup/ Ammar Amini</b></p>	<p><b>Parallel Session 8.4 (360.4.031)</b></p> <p><b>Topic: Hydrogen Energy</b></p> <p><b>Chair: Dr Ghazal Avijegon,Consultant</b></p> <p>1. Mr Rubaiyath Zaman Uttal &amp; Mr Rajaraman Hari, Murdoch University, Hot-swappable Plug-and-Play Stack Modules for Zero Emission</p>	<p><b>Field Visit 3 DigiLab tour</b></p> <p><b>Maximum of 30 people</b></p> <p><b>Murdoch University</b> utilises virtual and alternative reality to support teaching. This includes VR headsets whcih allow students to experience virtual tours of wind, solar, hydro, and nuclear power</p>	

<p><b>Modelling towards 100% Renewables</b></p> <p><b>2. Dr Jonovan Van Yken, Murdoch University, Designing Circular Pathways for End-of-Life Energy Infrastructure: Turning Energy Waste into Valuable Commodities.</b></p> <p><b>3. Ms. Sandra Winnie Angelo, BML Munjal University, Molecular Modelling of Star-Shaped Organic Molecules for Utilization as Charge Transport Layers in Solar Cells</b></p> <p><b>4. Prof Uroš Stritih,</b></p>	<p><b>Mining Camps Of Western Australia</b></p> <p><b>2. Mr Thananjeyan (Jey) Shivakumar, Cossill &amp; Webley, Decarbonisation through Microgrids and DER in Land Development, and additional Network Benefits</b></p> <p><b>3. Prof William Grace, UWA, The Role of EVs in the energy transition</b></p> <p><b>4. Ms Annisa Amalia, University Of Auckland, Multi-criteria decision analysis for low-carbon rural electrification in Indonesia.</b></p>	<p><b>offshore wind turbines</b></p> <p><b>2. Mr Jawad Mezaal, Murdoch University, Experimental Control Framework for an Active Axis Wind Turbine (AAWT)</b></p> <p><b>3. Prof Shazzad Hossain, UWA, Shared Torpedo Anchors for Mooring Floating Offshore Wind Turbines</b></p> <p><b>4. Dr Sharath Srinivasamurthy, Institute of Ocean Energy, Saga University, Optimization Method of Jacket Foundations for Offshore Wind Turbines Considering</b></p>	<p><b>Name of presenters:</b></p> <p><b>Panel Members: Presenters :</b> Assoc. Prof. Martin Anda, Furat Dawood, Cat Holland, Clayton Franklin, Chris Lund, Vesna Sampson, Prof. Roz Walker</p> <p><b>Aboriginal Community Representatives:</b> Dave Palmer - Warnpurru Preston Thomas, Matt Thomas, Jerimiah Thomas - Ngaanyatjarra Council</p> <p><b>Aboriginal Business Representatives:</b> J Jay Collard, Matt Guy, Emmanuel Collard - Mallee Karlip Group,</p>	<p><b>Stand-alone Hydrogen-enabled Power System for the Bioenergy Research Centre at Murdoch University</b></p> <p><b>2. Mrs Nusrat Chowdhury, Murdoch University, Techno-Economic Analysis of a Renewable Energy based Hydrogen-Battery Off-Grid Microgrid</b></p> <p><b>3. A/Prof Terry Humphries, Curtin University, Sodium borohydride hydrolysis for hydrogen export</b></p> <p><b>4. Dr Furat Dawood, Murdoch University,</b></p>	<p><b>systems. We invite conference participants to have a tour of the virtual reality labs including having a go of a virtual tour using the Energy Encyclopaedia application on a Meta Quest 3 headset.</b></p>	<p><b>1:30 Rob Grant, Managing Director, Head of Projects, Pollination Title: Transforming Investment in Renewable Energy and Nature Based Projects via Traditional Owner Partnerships.</b></p> <p><b>IMPLEMENTATION</b></p> <p><b>2:00 Mr Dongke Zhang, School of Engineering, Chemical Engineering, Director, Centre for Energy UWA. Title: The science, technology, economics and politics of biomass and bioenergy</b></p> <p><b>2:30 Afternoon Tea</b></p> <p><b>RESOURCES</b></p> <p><b>3:30 Professor Richard Harper, Centre for Crop and Food Innovation Food Futures Institute, Murdoch University Title: Potential biomass resource potential in Western Australia</b></p> <p><b>DISCUSSION</b></p> <p><b>3:45 Speaker, Speaker Panel and/or Roundtable Discussion</b></p>
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	University of Ljubljana - Faculty of Mechanical Engineering, GeoS -TECHIS project: designing a high-temperature UTES system for industry		Wind, Wave and Current Loads	Robby Mallard, Dwayne Mallard - Mallard Contracting  In absentia Frank Mitchell, Wilco Group – comments provided on behalf of Frank	Decarbonising Murdoch University Fleet Using Green Hydrogen Fuel.		5:00 Workshop concludes – refreshments available
3:30 - 4:00pm	<b>Coffee break</b>						
4:00- 5.00pm	<p><b>Common Session 9: Rosemary van dan Berg Room (360.4.003)</b></p> <p><b>Topic: Transition towards Renewable Energy</b></p> <p><b>Chair: Prof. Peter Newman AO, Curtin University WA</b></p> <ol style="list-style-type: none"> <li>1. Prof Hafiz Muhammad Ali, <i>King Fahd University of Petroleum and Minerals, Saudi Arabia</i>, Role of phase change materials in thermal management for solar photovoltaic systems (<b>ONLINE</b>).</li> <li>2. Prof. Ming Jun Huang, <i>Ulster University</i>, Satellite Observation on Assessing Effect of Greenhouse Gases Emission Reduction with Renewable Energy in UK</li> <li>3. Prof Hassan NFAOUI, <i>Mohammed V University, Rabat, Morocco</i>, Desalination Powered with Wind and solar energy in Morocco: Status, challenges and prospects. (<b>ONLINE</b>).</li> </ol>						
5.00- 5:45pm	Parallel Session 9.1 (360.4.003)	Parallel session 9.2 (360.4.021)  Topic: Storage	Parallel session 9.3 (360.4.022)	Parallel session 9.4 (360.4.020)	Parallel Session 9.5 (360.4.031)		

World Renewable Energy Congress XXV – Murdoch University, Perth, 8 -13 February 2026

	<p><b>Topic: Wind Energy Modelling</b></p> <p><b>Chair: Dr Craig Carter, Murdoch University</b></p> <p><b>1. .Mr Bikash Devkota, Murdoch University, Revisiting Wind Energy Potential of Southwest Western Australia using Convection-permitting Regional Climate Simulations</b></p> <p><b>2. Dr Soudabeh Shemehsavar, Murdoch University, Aspects of Wind Turbine: Modeling Avian Collision Risk and Latent Degradation of Components</b></p>	<p><b>Chair: Prof. Ali Akbar Zinatizadeh, Murdoch University</b></p> <p><b>1. Mr Abdul-Rahman Abdul-Rahman, King Fahad University Of Petroleum And Mineral Computational Design Of Innovative, Interlayers To Enhance Electrolyte Electrode Interface Stability In Lithium Metal Batteries.</b></p> <p><b>2. Ms Tanvi Bhatia, University Of Technology Sydney, Groundwork for a Dynamic Model: A Mixed-Methods Approach to Social Acceptance of Renewable Energy</b></p>	<p><b>Topic: Methodology &amp; Net Zero</b></p> <p><b>Chair: Dr .Tara Zirakbash, Murdoch University</b></p> <p><b>1. Prof Carlo Roselli, University Of Sannio, Load-disaggregation methodology for a university office building</b></p> <p><b>2. Dr Jiaqi Wang, Harbin Institute Of Technology, Generative Design and Multi-Objective Optimization of Net-Zero Vertical Transportation Hubs (ONLINE)</b></p> <p><b>3. Mr Arturo Calvo,</b></p>	<p><b>Topic: Control Systems</b></p> <p><b>Chair: Prof. Ming Jun Huang, Ulster University</b></p> <p><b>1. Prof. Pastora M. Bello Bugallo &amp; Dr. Mohammad Bany Issa, Advanced Single-phase PLL for Power Electronics Inverters: Renewable and Non-renewable Distributed Generators. (ONLINE)</b></p> <p><b>2. A/Prof Atiq Zaman, Global South Nexus, Curtin University, The Missing Pieces of the Puzzle: Industrial Decarbonisation Opportunities in</b></p>	<p><b>Topic: Renewable Resource</b></p> <p><b>Chair: Assoc. Prof Acep Purqon, Murdoch University</b></p> <p><b>1. Torben Grell, University of Western Australia, System-Specific Mitigation and Energy Recovery Pathways for Australian Dairy Manure</b></p> <p><b>2. Mrs Ellen Zebegew Murdoch University Biofuels in Australia: A policy analysis of barriers and pathways for increased uptake</b></p> <p><b>3. Dr Olumuyiwa Yinus Odufuwa,</b></p>		<p><b>Workshop 5 continues</b></p>
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	<p><b>3. Mr.Ammar Ahmed Wafad, Nottingham Trent University, Techno-economic and environmental feasibility of a Wind-Hydrogen-CHP microgrid for industrial decarbonisation in Teesside, UK ( <b>ONLINE</b> )</b></p>		<p><b>Universidade de Santiago de Compostela, Environmental Impacts Assessment of Enhanced Oil Recovery in the Orinoco Oil Belt:Challenges and Sustainable Approaches (ONLINE)</b></p>	<p><b>the Global North and South..</b></p> <p><b>3.Dr Surasak Nuilers National Electronics and Computer Technology Center (NECTEC) Mixed Modulation and Dead-Time Compensation for Enhanced AC Voltage Quality in Single-Phase Sine-Wave Inverters</b></p>	<p><b>Central University Of Technology Free State, Physics-Regularized Neural Surrogates for Solar-Powered Organic Rankine Cogeneration: Real-Weather Forcing with Exergy-Aware</b></p>		
5:45pm	<p><b>Common Session 10 : Rosemary van dan Berg Room (360.4.003)</b></p> <p><b>Chair session: Prof. Ali Sayigh, <i>Director General, WREN.</i></b></p> <ol style="list-style-type: none"> <li><b>1. Prof. Tania Urmee, Murdoch University</b></li> <li><b>2. Dr. Mara West, Aboriginal Stream</b></li> <li><b>3. Message from the Chief Scientist followed by the Award Ceremony for Best presenter and Poster – WA Chief Scientist Prof. Sharath Sriram.</b></li> <li><b>4. Prof Uroš Stritih,University of Ljubljana-Faculty of Mechanical Engineering, Slovenia , WREC XXVI</b></li> <li><b>5. Prof Tania Urmee, Murdoch University , WREC 2026 Concluding remarks and Vote of Thanks</b></li> </ol>						
6:30pm	<p><b>Closing ceremony – Sir Walter’s Restaurant, Murdoch University</b></p>						

***See below list of places for Technical Tours and the one day tour to the SW on 13<sup>th</sup> and to the North on 14<sup>th</sup> of February***

## **Thursday 12th February**

**Technical tours - Coaches will leave from the Chancellery at 8.30am**

**Technical Tour, Thursday 12th February 2026**

**Cost: \$110 including GST**

**At 8:30am sharp, delegates will leave by coach that will be waiting near the Chancellery Building at Murdoch University and return around 6:15pm.**

**The coach will head north along Tonkin Highway and arrive at Gingin Roadhouse for a brief stop at 10:00am. Whilst en route to the wind and solar farms, delegates can listen to a description over the PA, of the renewable energy transition/addition taking place within the South-West Interconnected System (SWIS) that supplies Perth and the south-west corner of Western Australia.**

**Handouts will be distributed detailing this transition.**

**At 10:15am the coach will leave the Gingin Roadhouse and arrive at the entrance to the 19.25MW Badgingarra Solar Farm at 11:30am, where delegates will be met by local technical staff from APA Group, who will act as tour guides for the visit to the solar farm and to the nearby Badgingarra Wind Farm, which is only 10 minutes away. APA Group staff will give a technical talk about these grid-connected renewable energy facilities with handouts being distributed.**

**At no later than 1:15 pm, the bus will depart for the half hour drive to Cervantes, where delegates will have a late lunch at the Lobster Shack, which is famous for its seafood meals and lobster processing.**

**At 3:15pm the bus will leave the Lobster Shack and travel south via Indian Ocean Drive.**

**The bus will stop for late afternoon tea at the Ampol Foodary, North Wanneroo, at 5:00pm.**

**At 5:15pm, the bus will depart and arrive at Murdoch University around 6:15pm.**

**Note: Delegates must wear long sleeve shirts, long trousers and closed-in shoes, otherwise they will not be allowed to visit the facilities. Delegates are expected to buy food and drinks at their own expense. Please take a water bottle as it's very hot.**

## Friday 13th February - Social Tour to South West of Western Australia

Conference tour to the SW of Western Australia Latest booking time 12 noon Monday 9th February
Coach will leave from the Chancellery at 8.00 am
See website at <a href="https://www.wrec2026.com/social-tours.php">https://www.wrec2026.com/social-tours.php</a>
Return to Murdoch University between 8 and 9pm.

## Saturday 14th February - Social Tour to North of Western Australia

Conference tour to the North of Western Australia Latest booking time 12 noon Monday 9th February
Coach will leave from the Chancellery at 8.00 am
See website at <a href="https://www.wrec2026.com/social-tours.php">https://www.wrec2026.com/social-tours.php</a>

Return to Murdoch University between 8 and 9pm via Perth Airport if requested.

## List of Poster Presentations

Sl.NO	Poster No	ID	Paper No	Presenting Author Names	Paper Title
1		50	24	Prof I-Yun Lisa Hsieh	Ezero AI: An AI-Driven Forecast–Decision–Dispatch Framework for Sustainable and Resilient Energy Management
2		72	27	Prof Keh-Chin Chang	Experimental study of sheltering effect for horizontally measured global solar radiation using a pyranometer
3		93	38	Mr Fawas Olaosebikan Mr Joseph Eminsang Conduah	Machine learning platform, Internal and External Melt Ice Thermal Energy Storage System predictive model

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4	92	42	Mr Piumal Amarakoon	REAL-TIME SENSOR-DRIVEN ADAPTIVE AIR CONDITION SYSTEM FOR THE REMOTE MINING ACCOMMODATION
5	100	44	Mr Joseph Eminsang Conduah	Optimal Energy Management of hybrid renewable energy systems for brewery thermal processes
6	100	45	Mr Joseph Eminsang Conduah	Artificial Neural Network-Based Predictive Modeling of Solar-Assisted Microbrewery Cooling Systems with Economic Analysis
7	100	46	Professor Kanzumba Kusakana	Rule-Based Nonlinear Optimization of Brewery Cooling Costs Under Time-of-Use Tariffs Using Interior-Point-Optimizer in MATLAB
8	77	52	Dr Yu-Jung Lee	Numerical and Flume Validation of a 1 kW Shore-Based Wave Energy Converter
9	39	82	Miss Miho Iwamoto	Impact Evaluation of a Carbon-Aware Datacenter Ecosystem for Renewable Integration
11	197	97	Mr Lebohang Alexis Nthama	An Effectiveness Number of-Transfer-Units Model for the Discharge Cycle of the Ice-on-Coil Thermal Storage Tank
12	198	98	Dr Olumuyiwa Yinus Odufuwa	Physics-Regularized Neural Surrogates for Solar-Powered Organic Rankine Cogeneration: Real-Weather Forcing with Exergy-Aware
13	93	116	Dr Olumuyiwa Yinus Odufuwa	Thermochemical Synergy: Coupling Ionic Liquid-Based Absorption Refrigeration with Solar Thermal Systems for Net-Zero Cooling
14	247	120	Mr Koki Baba	Transitioning from Coal: A Techno-Socioeconomic Study of Renewable Energy Integration in Thailand's Power Sector
15	237	124	Dr Sharath Srinivasamurthy	Stability Analysis of Guy-Wire Supported Floating Offshore Wind Turbines: Preliminary Study on Flexible Platforms
16	199	140	Mr Chigbo Oqualili	Advancing Proton-Exchange Membrane PEM: A Comparative study of Eco-friendly and Cost-effective alternatives and their properties

17		305	157	Prof Yongjin Chung	Microwave-Assisted Synthesis of P/O-Doped Graphitic Carbon for Energy Storage Applications
18		132	165	Prof. Yuan-Chung Lin	Green Synthesis of 5-HMF from Rice Husk Using Deep Eutectic Solvents and Metal Salts
19		339	170	Prof Ole Jorgen Nydal	A Photovoltaic cooker with a latent heat storage unit
20		396	200	Mr Ram Dahal	Integration of Green Hydrogen as a Kiln Fuel in Bhutan's Cement Industry: A Feasibility Study
21		414	204	Mr Donald Azuatalam	Measuring Electricity Infrastructure Resilience: A Comparative Review of Reliability and Resilience Metrics.
22		422	208	Dr Jun-Yeop Lee	Integrated Aero-Electro-Mechanical Modeling and Generator Reduced-Order Model for a 2 MW DFIG Wind Turbine
23		250	214	Mr Xuan-Kien Mai	Design of Condition Labels-Based Diagnosis Models for Wind Turbine Rotating Components Using SCADA Data
24		407	224	Mr Iqbal Azka Al Hamid	Unlocking High Energy Efficiency in Vanadium Redox Flow Batteries through Laser-Modified Graphite Electrodes
25		464	237	Mr Ammar Ahmed Wafad	Techno-economic and environmental feasibility of a Wind-Hydrogen-CHP microgrid for industrial decarbonisation in Teesside, UK
26		485	238	Dr Nitasha Chaudhari	Synergistic Enhancement of Quasi-Solid-State Dye-Sensitized Solar Cells Using Carotenoids and Santalin as Co-sensitizers
27		198	246	Dr Olumuyiwa Yinus Odufuwa	Economic Dispatch in Sustainable Microgrids Using Modern Optimization Methods: A State-of-the-Art Review
28		530	250	Mr Vijith Kartha	Next-Generation Asset Management for Solar PV Using LiDAR PointCloud, AI-Based Digital Twin & centralized SCADA

29		547	255	Mr Humphrey Bwire Sirengo Khisa	Non-Linear Droop Control Methods for Enhanced Active Power Sharing in Hybrid Microgrid
30		388	259	Miss Jingyi Liu	Optimizing Artificial Lighting in Waterfront Pathways for Enhanced Safety Perception and Energy Efficiency
31		138	84	Prof Mikio Ouchi	Molecular Design of Crown Ethers and Calixarenes for Selective Metal Extraction.
32		298	264	Raisei Sagara	NH <sub>3</sub> synthesis using an electrochemical membrane cell with molten alkaline electrolytes and Ru Catalysts
33		276	155	Dr Bayan Baatiah	Defect-Engineered Cobalt-Doped MnO <sub>2</sub> Nanowires for High-Performance Aqueous Zinc-Ion Batteries
34		93	37	Mr Thabang Khahloe	Sensitivity Analysis of a Solar-Biomass Hybrid Cooler with Artificial Neural Network and Engineering Equation Solver
35		234	139	Mr. Logan Page	The Role of LDES in a highly decarbonised NEM