# DER/CER Grid Integration Forum

for net zero precincts

Sept 23

## Event program

### Welcome and introduction

9:00 am AWST | 11:00 am AWST

Professor Peta Ashworth, Curtin Institute for Energy Transition

### NZP Peel Business Park-Nambeelup Kaadadjan: Lessons learnt

9:15 am AWST | 11:15 am AWST

Dave Morgan, DevelopmentWA

+ topic discussion

### Reflections on climate adaptations for NZPs to meet needs now and in the future

10:05 am AWST | 12:1=05 am AWST

Professor Mark Howden, Intergovernmental Panel on Climate Change (IPCC)

Followed by topic discussion

### Regulations for DER/CER and grid integrations

11:05 am AWST | 1:05 pm AWST

Professor Penelope Crossley, University of Sydney

Followed by topic discussion

### Multi-objective trade-offs for NZPs

11:55 am AWST | 1:55 pm AWST

Dr Bill Lilley, RACE for 2030

Followed by topic discussion

### Reflections and conclusions

12:40 pm AWST | 14:40 pm AWST

Professor Josh Byrne, Curtin University

RACE for 2030

Curtin University

pathways to net zero precincts

# DER/CER Grid Integration Forum for Net Zero Precincts

## Speakers

**Prof. Peta Ashworth**
Professorial Lead – Grid Integration Pathway
**Curtin University Pathways to Net Zero Precincts Project**

Professor Peta Ashworth OAM, Director of the Curtin Institute for Energy Transition, is a renowned expert in energy, communication, stakeholder engagement, and technology assessment. She has researched public attitudes towards climate and energy technologies, including wind, carbon capture and storage (CCS), solar photovoltaic, storage, geothermal and hydrogen, for almost two decades. An accomplished speaker and educator, she actively promotes energy literacy globally and contributes to policy briefings and educational events.

Prior to joining Curtin University, Professor Ashworth was the Director of the Andrew N. Liveris Academy for Innovation and Leadership, and Chair in Sustainable Energy Futures at The University of Queensland (UQ). She was also Chair of the Queensland Hydrogen Taskforce and is a member of CSIRO Hydrogen Mission Advisory Board.

### 1 NZP Peel Business Park - Nambeelup Kaadadjan: Lessons learned

**Dave Morgan**
Development Manager
**Development WA**

Dave is a seasoned development manager and active member of DevelopmentWA's Net Zero Working Group, where he contributes both technical expertise and deployment capabilities for renewable energy initiatives. Dave is a passionate advocate for sustainable development, spearheading the development and implementation of Western Australia's first green-titled microgrid solution for industrial use.

A qualified electrical engineer, Dave began his career in the pulp and paper industry, delivering innovative engineering solutions across Africa. His notable project achievements in this space include deploying the first lightning dip-mitigating reactor solution for grid-connected utility generation plants and being a major contributor to the deployment of the first industry-scale ozone bleaching plant, replacing less environmentally friendly chlorine-based processes.

Dave's career has been diverse and dynamic, including a tenure as a Senior IT Consultant with Deloitte before successfully managing a business start-up across Australia. He returned to his project roots eight years ago to rekindle his passion for projects and to make his contribution to sustainable development in the land development industry.

## 2 Reflections on climate adaptations for NZPs to meet needs now and in the future

**Prof. Mark Howden**
Vice-Chair
**Intergovernmental Panel on Climate Change**

Emeritus Professor Mark Howden AC FAA FTSE is a Vice Chair of the Intergovernmental Panel on Climate Change (IPCC) and was until recently the Director of the ANU Institute for Climate, Energy and Disaster Solutions and Chair of the ACT Climate Change Council. He contributes to several other major national and international science and policy advisory bodies.

Mark has worked on climate variability, climate change, innovation and adoption issues for almost 40 years in partnership with many industry, community and policy groups via both research and science-policy roles and is a high-profile public communicator. He helped develop the national and international greenhouse gas inventories that are a fundamental part of the Paris Agreement and pioneered sustainable ways to reduce emissions. He has been a major contributor to the IPCC since 1991, with a record number of roles across all four dimensions of the IPCC: climate science, impacts and adaptation, mitigation and GHG inventories, sharing the 2007 Nobel Peace Prize with other IPCC contributors and Al Gore.

## 3 Regulations for DER/CER and grid integration

**Prof. Penelope Crossley**
Professor of Law
**University of Sydney Law School**

Professor Penelope Crossley is an international expert in the complex legal issues associated with the energy transition, including renewable energy and energy storage law, and electricity market governance. She is known for her sustained engagement with industry and government stakeholders, and for developing recommendations that have been directly adopted into law, international policy documents, and consumer guides.

In addition to her academic role, Penelope holds important clean energy industry leadership roles, serving as the Chair of the Product Listing Review Panel (2016 – present) and the Chair of the New Energy Technology Consumer Code Monitoring and Compliance Panel (2023 – present). She is also a Senior Legal Expert Consultant for the United Nations on Financing the Energy Transition.

Previously, Penelope worked as an international project finance lawyer, and global in-house counsel for BP Alternative Energy. This commercial and practical legal experience informs her current research, ensuring that she focuses on real-world problems and identifies innovative commercial solutions that can be easily translated and applied.

# 4 Multi-objective trade-offs for NZPs

Dr Bill Lilley
CEO
RACE for 2030 CRC

Dr William (Bill) Lilley is a proven multi-disciplinary leader with over 25 years' experience in research and industry. Bill delivered CSIRO's 'Intelligent Grid' research program, which showcased the value of distributed energy for Australia. He was a principal advisor on the federal government's 'Smart Grid Smart City' initiative which determined the cost-benefits of a commercial scale rollout of smart grid technologies and consumer applications in Australia.

Bill spent over a decade working for Aramco in the Kingdom of Saudi Arabia and France. In KSA, he was instrumental in the development of a national energy strategy and its associated macroeconomic framework. Bill led the implementation of the strategy within the power and water sector including the development and application of integrated resource planning models.

Bill has developed detailed techno-economic frameworks for the development of hydrogen and low carbon fuels focusing on the integration of renewable energy. He also developed alternative futures models comparing various modes of decarbonisation in the transport and power sectors. These detailed models underpinned his advice on international policy development in low emission transport.

Prof. Josh Byrne
Chief Investigator
Curtin University
Pathways to Net Zero Precincts Project

Professor Josh Byrne AM is an environmental scientist and urban design professional whose career intersects academia, professional practice, policy and media. His approach is leadership through demonstration by engaging in projects that provide opportunities to test innovation, build capacity and share learnings with stakeholders and the wider community. As Dean of Sustainable Futures in Curtin University's Faculty of Humanities, Josh leads research, teaching and engagement initiatives.

Josh has a long association with applied research, complimenting his extensive industry experience in the urban design and development sector. His research expertise spans water sensitive design, energy efficient housing and sustainable urban development, and he has authored a number of academic publications, industry guides and factual video series in these fields.


## About

Pathways to Net Zero Precincts Project

Pathways to Net Zero Precincts is a three-year research project to develop and implement innovative strategies for transitioning urban precincts towards net zero emissions. A collaborative initiative between Curtin University, the RACE for 2030 Cooperative Research Centre and a consortium of leading industry and research partners, case studies from across Australia form the testing ground for real-world interventions.
https://netzeroprecincts.au/