

CIDER 2015

INAUGURAL CONFERENCE ON
INTEGRATION OF DISTRIBUTED ENERGY
RESOURCES IN THE ASIA PACIFIC REGION



Conference on Integration of Distributed Energy Resources

CIGRE Australian Panel C6 Distribution Systems and Dispersed Generation

TUTORIAL – Wednesday 19th August

0800 - 0830

Registration

0830- 1000

Low Voltage network modelling and measurement, including discussion of phase identification, voltage unbalance and possible mitigation measures.

Dr Houman Pezeshki, QUT, and Assoc. Prof Geoff Walker, QUT

1000 – 1030

Morning Tea and Networking

1030 – 1100

Frequency Response and Its Enhancement Using Synchronous Condensers in Presence of High Wind Penetration

Nahid-AI-Mahoud, UQ

1100 – 1130

Technical Requirements for the Connection of a MW-scale PV Array with Battery Storage to an 11kV Feeder in Queensland”

Vince Garrone, UQ

1130 -1230

Considerations in installing renewables on the reliability and life of the existing transformer fleet

Dr. Daniel Martin, UQ

12.30 – 1.30

Lunch - BMW i3 on show

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WEDNESDAY 19th August

8:00 am - 1:30 pm	Registration	3:30 pm	Session - Case Studies
8:30 am - 12:30 pm	Tutorial Presented by Queensland University of Technology and the University of Queensland =====	3:30 pm	Session - Case Studies <i>PSC's Investigation into Charging Electric Vehicles from Distributed Solar Generation</i> Ranil de Silva, PSC Group <i>King Island: A Case Study in Achieving High Levels of Renewable Energy in a Hybrid Off- Grid Power System</i> Ryan Willems, Hydro Tasmania
1:30 pm	Opening - BMW i3 on show Welcome and General Greeting Terry Killen, Executive Manager CIGRE Australia <i>Conference Opening</i> Ken Ash, Chair CIGRE Australian Panel C6 Session - Status, Trends and Policy <i>Investigating the Impact of Emerging Technologies on the NEM</i> Matt Armitage, Australian Energy Market Operator <i>The Customer Centric Grid</i> Helen Stewart, Energex <i>Clean Energy Council Leading the Way on Renewable Energy Grid Integration in Australia with a Nation-Leading Initiative</i> Tom Butler, Clean Energy Council <i>Back to the Future: Off-grid Townships</i> Greg Thorpe, Oakley Greenwood Afternoon Tea	4:15 pm	Next Generation Network (NGN) Event <i>Skill Sets Required for DER</i> Nick Pappapetros, Ergon Energy Mark Paterson, CSIRO Geoff Walker, Queensland University of Technology Tim Quirey, Department of Energy and Water Supply Alexandra Price, Energex
		5:45 pm - 8:00 pm	Social Event / Networking Dinner

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Thursday 20th August

8:00 am - 11:00 am

Registration

8:30 am

Session - Energy Storage

Supply Reliability for Remote Locations via Energy Storage

Stephen Richardson, Ergon Energy

The Importance of Control Systems and Information for Management of Energy Storage Systems

Nicola Wilkins, Sunverge Energy

Integration of Storage in Australia's Energy Markets

Dr. Julian Eggleston, Australian Energy Market Commission

Residential Storage - An Assessment

Michelle Taylor, Ergon Energy

Session - Variable Voltage Transformers

The Minera SGrid Regulating Transformer

Max Decker, Schneider Electric

An Economic Voltage Optimized Distribution Transformer

Gary Cox, Wilson Transformer Company

Morning Tea

11:00 am

Session - Status, Trends and Policy

100% Renewables for Australia? Challenges and Opportunities

Dr. Jenny Riesz, University of NSW

Distributed PV Generation Estimates from the APVI Live Solar Map

Navid Haghdadi, University of NSW

Lunch – BMW i3 on show

1:30 pm

Session - MV & LV Statcoms

Dynamic Grid Stabilisation Utilising Statcom Technology

Devern Hill, Statcom Solutions

Voltage Regulation of Distribution Networks with High Levels of Residential PV with a Centralised STATCOM

Stephen Sproul, Ergon Energy

LV Statcoms and Storage for Voltage Management in Distribution Systems

Dr. Mike Wishart, Power IQ

Session - Inverters and Grid Interaction

Smart Inverters - A Smart Grid Study

Rod Dewar, Fronius Australia

The New Requirements of AS4777 (2015): Grid Connection of Energy Systems via Inverters

Michelle Taylor, Ergon Energy

Afternoon Tea

4:00 pm

Session - Power Quality

Power Quality Implications of High Penetration of Small Scale Renewable Energy Systems

Sean Elphick, University of Wollongong

Session - Voltage Control

A Study into Effects and Mitigation of Increasing DER Penetration on Voltage Regulation in LV and SWER Distribution Systems

Dr. Tim Browne, PSC Australia

Voltage Regulation Challenges in Distribution Networks with Rooftop PV Systems and Possible Mitigation Using Reactive Power Control and Battery Energy Storage

Dr. Md Jan E Alam, University of Queensland

Managing Distribution Voltages in South East Queensland with Increasing Penetrations of Solar DER

Peter Kilby, Energex

Closing remarks and summary – Ken Ash, Chair CIGRE Australian Panel C6