

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

WEDNESDAY 19th August

8:00 am - 1:30 pm **Registration**

8:30 am - 12:30 pm **Tutorial**

Presented by Queensland University of
Technology and the University of Queensland

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1:30 pm **Opening - BMW i3 on show**

Welcome and General Greeting
Terry Killen, Executive Manager CIGRE
Australia

Conference Opening
Ken Ash, Chair CIGRE Australian Panel C6

Session - Status, Trends and Policy

*Investigating the Impact of Emerging
Technologies on the NEM*
Matt Armitage, Australian Energy Market
Operator

The Customer Centric Grid
Helen Stewart, Energex

*Clean Energy Council Leading the Way on
Renewable Energy Grid Integration in
Australia with a Nation-Leading Initiative*
Tom Butler, Clean Energy Council

Back to the Future: Off-grid Townships
Greg Thorpe, Oakley Greenwood

Afternoon Tea

3:30 pm **Session - Case Studies**

*PSC's Investigation into Charging Electric
Vehicles from Distributed Solar Generation*
Ranil de Silva, PSC Group

*King Island: A Case Study in Achieving High
Levels of Renewable Energy in a Hybrid Off-
Grid Power System*
Ryan Willems, Hydro Tasmania

4:15 pm **Next Generation Network (NGN) Event**

Skill Sets Required for DER
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