



Day 1 - 20th August

Presenter

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| Registration | | | 8:00 – 9:00 |
| Welcome and Keynote | | | 9:00 – 10:30 |
| Welcome & Conference Introduction | | | |
| Keynote Speaker | Violette Mouchaileh | | AEMO |
| The Role of Distributed Resources in Transforming the Energy System and Market | Executive General Manager, Emerging Markets and Services, | | |
| Opportunities from DER? How do we Create a Future where DER Benefits Customers and the Energy System? | Laura Jones | | TasNetworks |
| Morning Tea 10:30 – 11:00 | | | |
| Storage 11:00 – 11:20 | | | |
| Western Power's Perenjori BESS - Functionality and Operational Experience | Nathan Kirby | | Western Power |
| Voltage 11:20 – 12:40 | | | |
| Understanding the Impact of Very High Penetrations of Rooftop PV on Power Transformer Tap-changers | Olav Krause | | University of Queensland |
| Solving the Problem of Excessive Voltage Rises Caused by Rooftop Solar Using Voltage-regulating Distribution Transformers | Peter Kilby | | Energy Queensland |
| Narara Ecovillage Case Study – Delivering 100% Solar Import and Export Capable, Zero Emissions Smartgrid | Toby Roxburgh | | Electromotiv |
| Dynamic Voltage Management System | Hedy Dalvand | | United Energy |
| Lunch 12:40 – 13:40 | | | |
| Inverters and System Performance 13:40 – 15:00 | | | |
| Dynamics of Inverters with Synchronous Machines | Gerard Ledwich | | Queensland University of Technology |
| Frequency Response Provision from Distributed PVs Considering the August 2018 Separation Events in Australia | Mehdi Ghazavi Dozein | | University of Melbourne |
| Data-driven Insights into Distributed PV Behaviours - Balancing System Level and Distribution Needs | Naomi Stringer | | University of NSW |
| Provision of Time Constrained Grid Services through Energy Constrained Distribution-Side Resources | Shariq Riaz | | University of Melbourne |
| Afternoon Tea 15:00 – 15:30 | | | |
| Testing 15:30 – 16:10 | | | |
| Protection, Automation and Control with Distributed Energy Resources - Testing Issues | Maryam Khallaghi | | OMICRON |
| Hardware-in-the-Loop Test for DERs: A Powerful Benchmarking Tool | Ke Meng | | University of NSW |
| NGN Panel Session 16:10 – 17:45 | | | |
| Managing the Impact of DER on Grid Stability | Jacqui Mills | | (Moderator) |
| Peter Kilby (Energy Queensland), Cheryl Noronha (AEMO), Sasan Zabihi (ABB), Glen Summers (AGL Energy), Olav Kraus (University of Queensland) | | | |
| Social Event / Drinks / Stand-up Networking Dinner In Exhibition Area 18:00 – 20:30 | | | |

Day 2 - 21st August

Presenter

Registration 8:00 – 8:30

Harmonics 8:30 – 9:30

Harmonic Emissions Studies of Large Renewable Energy Farms; Modelling and Data Management Learnings Jason David University of Wollongong

Harmonics Considerations when Connecting Power Electronics (PE) Interfaced Generation Kevin Tu WSP

Network and Generator Modelling for Harmonic Compliance Marius Jansen Optimised Network Equipment

STATCOMs and Synchronous Condensers 9:30 – 10:30

Sizing STATCOMs for Step Voltage Change Criteria John Wright-Smith AMSC

Performance Testing of LV STATCOMs Jason David University of Wollongong

Application of Modern Synchronous Condensers to Support Distributed Energy Resources Derrick Nofal ABB

Morning Tea 10:30 – 11:00

Keynote Speaker 11:00 – 12:00

DER in a Decarbonised, Decentralised and Democratised Grid Lachlan Blackhall ANU

DER Orchestration 12:00 – 12:40

Maximising Grid Utilisation through Constraint Based DER Orchestration Olav Krause University of Queensland

Quantifying the Effects of Electric Vehicles on the Tasmanian Low Voltage Network Michael Jurasovic TasNetworks

Lunch 12:40 – 13:40

Inverters 13:40 – 15:10

Grid-forming Converters and Benefits to the Grid - ABB's Experience Stephen Sproul ABB

From Inverter Standards to Understanding Inverter Behaviour for Small-scale Distributed Generation Leonardo Callegaro University of NSW

Power Quality Response Modes Sanika Willard CutlerMerz

Power Quality Response Modes - Panel Session Jenny Gannon (Moderator)

Afternoon Tea 15:10 - 15:40

Active Distribution Systems 15:40 – 16:40

Techno-economic and Business Case Assessment of University of Melbourne Virtual Power Plant Han Wang University of Melbourne

Carnarvon Microgrid Trial David Stephens Horizon Power

Insights into the DER API Working Group in Australia Andrew McConnell Energy Queensland

Conference Close 16:40 - 16:50

CIGRE AUSTRALIA WOULD LIKE TO THANK AND ACKNOWLEDGE THE SUPPORT OF THE FOLLOWING SPONSORS & EXHIBITORS

