



CIGRE ANC Seminar

“The impact of power electronics on network performance and capability”

9th November 2017 to 10th November 2017

University of Queensland – St Lucia Campus, Building 24, Room 402

PROGRAM - Day One: 9th November 2017

Start Time	Finish Time	Title	Presenter
9:00AM	9:30AM	Welcome and Keynote speaker	Simon Bartlett University of Queensland
9:30AM	10:00AM	South Australia Blackout – September 28, 2016 D-VAR STATCOM Performance	John Wright-Smith (American Superconductor)
10:00AM	10:30AM	SVC Plus FS presentation.	Volker Hild (Siemens)
10:30AM	11:00AM	Break	
11:00AM	11:30AM	Impact of a STATCOM with the frequency stabiliser capability (400MWs) on frequency control in the Tasmanian power system.	Andrew Halley (TasNetworks)
11:30AM	12:00PM	Use of STATCOMS to assist with providing network support given the change in generation patterns, technologies and the increase in renewables.	Colin Wood (ABB)
12:00PM	1:00PM	Lunch	
1:00PM	1:30PM	Comparison of FFR and inertial energy.	Mark Davies (TasNetworks)
1:30PM	2:00PM	Implementing STATCOMS to improve voltage profile of electricity distribution network with high levels of renewables.	Yateendra Mishra (QUT)
2:00PM	2:30PM	D-VARs for wind farm connections.	John Wright-Smith (American Superconductor)
2:30PM	3:00PM	Break	
Tutorial Sessions			
3:00PM	4:00PM	Connection of Wind Farms to Weak AC Networks.	Mark Davies (TasNetworks)
4:00PM	5:00PM	Power system operation with high penetration of non-synchronous generation.	Babak Badrzadeh (AEMO)
5:30PM	8:30PM	Evening dinner/networking event - at UQ	

“The impact of power electronics on network performance and capability”

PROGRAM - Day Two: 10th November 2017

Start Time	Finish Time	Title	Presenter
9:00AM	9:30AM	Modular multilevel converters: The key power electronics technology for high power network applications.	Georgios Konstantinou (UNSW)
9:30AM	10:00AM	Harmonic resonance issues related to the installation of new SVC Plus unit in Queensland – observations and applied mitigations	Rizah Memisevic (Powerlink)
10:00AM	10:30AM	<i>Harmonic allocation issues for renewable generation connected to sub-transmission systems</i>	Vic Gosbell (UOW) and Chandana Herath (Essential Energy)
10:30AM	11:00AM	Break	
11:00AM	11:30AM	The impact on network harmonics following the transition from DC to AC locomotives in one area of Queensland – Analysis and test results that justified disconnection of harmonic filters.	Igor Perin (Aurizon)
11:30AM	12:00PM	Impact of non-synchronous generation on the operation of protection relays.	Babak Badrzadeh (AEMO)
12:00PM	1:00PM	Lunch	
1:00PM	1:30PM	Managing ‘system strength’ in Tasmania. How fault levels and inertia are currently managed in real time and the impacts of recent Rule changes.	Andrew Halley (TasNetworks)
1:30PM	2:00PM	The role of VSC HVDC systems in connecting renewable energy projects	Les Brand (Amplitude Consultants) / Nalin Pahalawaththa (TransGrid)
2:00PM	2:30PM	National Electricity Market (NEM) impacts of recent power station closures – The potential role of capacity markets going forward.	Dr Robert Barr (Electric Power Consulting)
2:30PM	3:00PM	Break	
Panel Discussion and Closing			
3:00PM	4:30PM	<p>Panel Topic:</p> <p>“How must the Australian power system evolve and change to prepare for a future of 100% renewable energy and storage”.</p>	<p>Chair: Jenny Riesz (AEMO)</p> <p>Panel session members (5)</p>
4:30PM	4:45PM	Closing	C4/B4 Panel Conveners