



Welcome to the GREEN Grid Conference

Dr Allan Miller
10 February 2016

- Energy and Minerals RFP (14 December 2011), Targeted Research Questions:
 - Supply variability characteristics of renewable resources and how to ensure a secure electricity supply
 - Economic and technical models to evaluate the potential impact of renewable energy feeding into our distribution networks
 - Mechanisms used to investigate the performance of low voltage networks, subject to bi-directional power flows as a result of the input of renewable energy?

1. Understand renewable variability and how to deal with it



2. Understand household consumption patterns, people's attitudes to new technologies and demand response potential



3. Model PV and EVs in the distribution network
 - Protection in the low voltage network
 - Power quality impacts



Smart Grid Edge Technologies in New Zealand

Dr Rebecca Ford, CSAFE, University of Otago



Household Demand and Demand Management Opportunities

Dr Michael Jack, University of Otago

Hosting Capacity and Congestion in Low Voltage Networks with SSDG

Dr Sharee McNab, EPECentre, University of Canterbury

Tim Crownshaw, Transpower

Medium Voltage Network Modelling

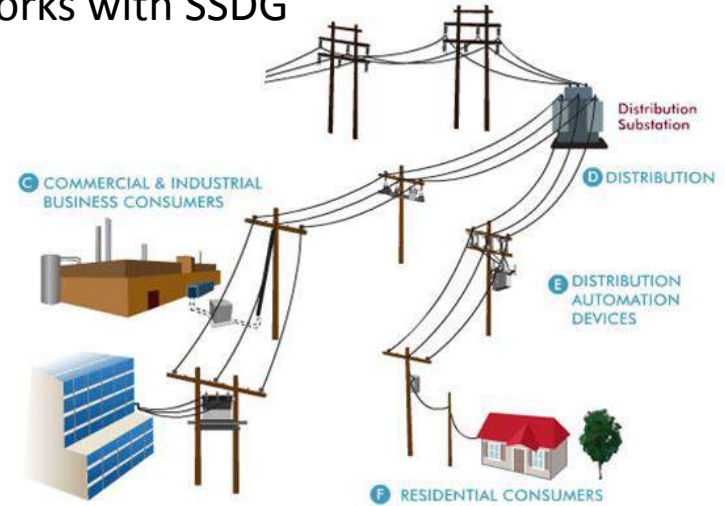
Scott Lemon, EPECentre, University of Canterbury

Key Findings from Vector's Residential PV trials

Kate Murphy, University of Auckland

Protection and Safety of People, the LV Network, DG Systems and Homes

Dr Nirmal Nair, University of Auckland

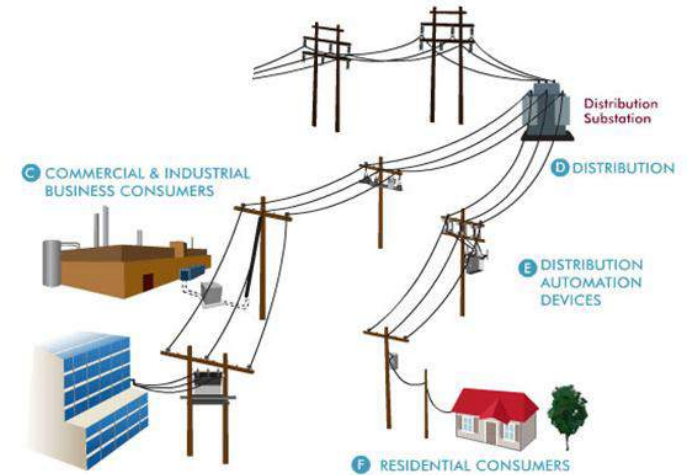


EV Update in New Zealand

Dr Janet Stephenson, CSAFE, University of Otago

EV and their Impact on Network Power Quality

Prof. Neville R. Watson, University of Canterbury



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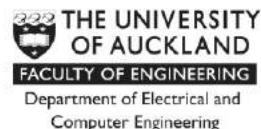
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Thank you to the supporters of the GREEN Grid programme.