



ABOUT THE PRESENTERS

3:00 PM **SEMINAR COMMENCES** — Welcome from Peter Berry, Chief Executive of EEA

3:05 PM **Richard Kingsford — WEL Networks**

Title: New Approaches to Network Planning



Richard has 20 years of experience across the industry in both planning and operational roles. In his current role he must manage existing assets for the current environment while understanding the impact of new technologies, changing landscape and expectations. Working in WEL brings the opportunity to forecast future network and DSO requirements, then use both technologies and cutting-edge technologies to address these requirements

About: Electric Vehicles (EV) and Photovoltaic cells (PV) are bringing new challenges to Distribution Network Designers. There is a lot of industry focus on future energy requirements but we must also consider how the update of new technology will impact the voltages on our Network and therefore drive investment.

EV and PV uptake will occur in a slightly predictable yet random manner. We can predict that the impact will be earlier in affluent neighbourhoods, yet the impact within each neighbourhood is random. Therefore modelling LV scenarios will not allow efficient forward planning, with this challenge WEL have changed their approach to emphasize measuring and responding rather than modelling and planning.

3:25 PM **Euan McGill — EPECentre**

Title: A stochastic method for assessing the impact of electric vehicles in low voltage distribution networks



Euan is a PhD student at the EPECentre, with the GREEN Grid project. Euan completed a Master of Engineering in Electrical & Electronic Engineering with International Study, with distinction, at the University of Strathclyde, Glasgow, Scotland in 2016.

About: Electric vehicle (EV) ownership is growing both globally and in New Zealand. In the future, EVs are expected to contribute significantly to residential electricity demand. As EV penetration increases, low voltage (LV) distribution networks may require upgrades in order to avoid constraints. Load flow simulations allow network impacts to be assessed a priori. Appropriate models for both baseline and EV load are required in order to perform such simulations.

3:45 PM **Peter Armstrong — Waipa Networks**

Title: A Case Study of an Innovation Ecosystem



Peter Armstrong is the Network Asset Manager at Waipa Networks, a small electricity distribution network in the Waikato region of New Zealand. He has 28 years experience in the electricity sector, having worked in generation, transmission and distribution as well as consulting in New Zealand and internationally. He holds a Bachelor of Engineering from the University of Canterbury and a Master of Business Administration with Distinction from the University of Waikato.

About: The purpose of this presentation is to present a case study of innovation as practiced at Waipa Networks, a small electricity distribution network in the Waipa, Waikato and Otorohanga Districts of the North Island of New Zealand. This case comparison takes aspects of innovation and global business, and applies it to the situation of Waipa Networks, considering how innovation could be best managed within that business.

4:05 PM **QUESTION SESSION: Facilitator — Dave Brannigan, Orion**