



ABOUT THE PRESENTERS

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

3:05 PM Waqar Qureshi—Horizon Networks

Title: Asset Health, Criticality and Risk: Systematic Development and Application



Waqar Qureshi joined Horizon Networks as Asset Manager in 2018. He loves applications of advanced data analytics for Asset Management. He is past Secretary for CIGRE NZ and past Chair for IEEE PES New Zealand North. He has also been member of EEA Asset Criticality Working Group.

About: Horizon has recently applied the EEA Asset Criticality Index (ACI) Framework and adopted the EEA Asset Health Index(AHI) frameworks to a systematic risk model, using mobile data collection and asset criticalities as inputs to the model to optimise asset inspection, maintenance and replacement & renewal programs. This presentation presents the development of a risk framework that incorporates key elements of the EEA & DNO health scoring systems, the framework includes a GIS and operational data-based criticality assignment tool and the calculation of current and future risk as a function of criticality and health.

The automated health calculation from field inspection data is also presented, and its performance reviewed.

3:25 PM Nurzhan Nursultanov—EPECentre and Andre Cuppen—Unison

Title: LV pedestal—failure events and material characterization



Nurzhan Nursultanov is a Research Engineer at the Electrical Power Engineering Centre (EPECentre) at the University of Canterbury. His research interests include advanced heat transfer, conduction characteristics and modelling of non-uniform materials, and control and optimisation of heating processes.

He has a PhD degree from University of Canterbury in Chemical and Process Engineering. The subject matter of his Thesis was computational modelling of Joule heating of *Pinus radiata* logs.



André Cuppen is the Electrical Engineer – Fault Avoidance and Constraints at Unison Networks, Ltd., responsible for asset strategy, condition assessment and maintenance of underground cables and LV ground mounted equipment. André has over 15 years' experience in cable condition assessment and asset management across roles in Australia, The Netherlands and New Zealand. He became the CIGRE NZ.B1 cable panel Convener in 2019 and an active member of the CIGRE AP B1 – Insulated Cables panel in 2018. He received his M.Sc. and B.Sc. in Electrical and Electronics Engineering from the Technical University of Eindhoven, a European research university, specialised in engineering science and technology.

About: Results of tests associated with identification of LV distribution pillar plastic type and the assessment of thermal stability of the materials are presented here. Five LV pillars exposed to different operating environments and of varying age are assessed in this study. The study is a part of a larger work programme initiated by Unison to investigate into the incidences of fire of LV distribution pillars.



ABOUT THE PRESENTERS

3:45 PM Paul Blackmore—Powerco

Title: Geospatial Modelling of Overhead Distribution Conductor Condition and Risk Using the DNO Common Methodology Framework



Paul is an experienced electrical engineer with qualifications in electrical and mechanical engineering. Paul has held engineering management positions within the Australian electricity distribution company Energex Limited, managed EA Technology Australia's Asia Pacific Consulting business and is currently a strategy advisor within Powerco. Key areas of focus have included the development of maintenance policy, asset risk profiling and replacement forecasting, business process design and change management, vegetation management strategy and operational management of asset maintenance and replacement programs. Paul was awarded a PhD in 1998 for the development of novel condition-monitoring techniques for high voltage electrical insulation.

About:

Knowledge of the condition and remnant life of overhead distribution conductors is a fundamental input into the asset renewal planning process. This information is important as conductor renewal typically triggers a design review which in many instances results in replacement of additional assets such as poles and other line components to bring the line to current standards. In this presentation we discuss Powerco's experience in developing a model to evaluate conductor condition and risk using the best available but sometimes sparse information.

4:05 PM QUESTION SESSION: Moderator—Grant Hogan, Unison

RECORDED SESSION

The **1st webinar 'Future Networks'** is now available to view via the EEA website— [click here](#)



WINTER WEBINARS SERIES

The **4th and final** in this winter series of webinars will be held on Tuesday 29th September.

The title of this 4th webinar is **'Asset Projects'**.

Further details plus how to register for the webinar will be available at a later date.