

Joint webinar organized by
CIGRE NGN United Kingdom and NGN Australia

Cutting edge technologies towards a net-zero world

Thursday, 27th January, 2022

CIGRE Next Generation Network

The Next Generation Network (NGN) seeks to facilitate a successful transition into the power systems industry for **early-career professionals and students** by providing technical resources and networking opportunities for personal and technical development.

CIGRE NGN UK and CIGRE NGN Australia would like to invite to a webinar where two top speakers will present current research activities and applications regarding the impact of cutting edge technologies on power networks.

Date and Time: 27th January 2022, 7 –8:30 (GMT), 18-19:30 (AEDT)

Platform: GoToWebinar

Agenda: 7 – 7:10 (GMT)	Introduction of CIGRE NGN Australia & UK
7:10 – 7:40	Speech I by James Guest
7:40 – 8:10	Speech II by Roisin Hickey
8:10 – 9:00	Round table discussion

Register for the event:

<https://www.eventbrite.com.au/e/cutting-edge-technologies-towards-a-net-zero-world-registration-240669548097>

Join Us

NGN AU Signup: <https://www.cigreaustralia.org.au/about/next-generation-network-ngn/>

For AU Inquiries: ngn@cigreaustralia.org.au

NGN UK Signup: <https://cigre.org.uk/ngn/join-ngn/>

For UK Inquiries: Yue Zhou, chair@cigre-ngn-uk.org

Speech I – Wide-area EMT Modelling and Use of Power System Studies

As the energy industry transitions to new low-carbon technologies, new types of power system stability issues begin to emerge. Simulating these new phenomena such as instabilities caused by low system strength has become a challenge due to the high level of detail required in power system models. AEMO has been leading the industry in using large scale Electromagnetic-Transient (EMT) simulations by creating a model of the entire Eastern Australia power system in PSCAD. This presentation will cover the following topics: Drivers for using EMT modelling, The PSCAD model development process, and System security assessment using PSCAD.

James Guest



James Guest is a Senior Engineer working in AEMO's Operational Analysis and Engineering team. During his time at AEMO he has worked in Grid and SCADA Modelling, Operations Planning, National Planning and Congestion Modelling. James has experience in power system modelling and real-time analysis, applications and systems. He has an interest in automation and has developed several decision making tools currently in use across the organisation.

Speech II – A roadmap for EV Charging

The UK Government has committed to ending the sale of new petrol and diesel cars and vans by 2030, with hybrids being phased out by 2035. Projections suggest that a massive revolution in transport is on its way, with accelerating EV uptake forecast for the coming years. This has significant implications for the infrastructure needed. Some charging challenges have already been solved but this presentation will discuss the key barriers on the roadmap, which will need to be addressed if the sector is to expand as predicted and deliver the hoped-for air quality and climate change benefits.

Roisin Hickey



Roisin Hickey is an Assistant Technical Specialist in the Infrastructure Strategy team at Cenex. After initially studying astrophysics, she decided to bring her focus back down to earth with a masters degree in Sustainable Energy Engineering from the University of Nottingham. In her role at Cenex she supports government, local authorities, and companies with the information and insight they need to switch to electric vehicles.

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