## **POWER, ENERGY & CLEAN TECHNOLOGIES**

## **Biography**

**Mr Peter Kilby** Senior Grid Transformation Engineer Energy Queensland

Peter is an Senior Grid Transformation Engineer at Energy Queensland with a background in distribution voltage management practices and the integration of high penetrations of consumer owned distributed energy resources (CER/DER).

After completing Energex's graduate program he has worked in substation design, led revisions to the medium voltage regulation practices to cost-effectively increase distributed solar PV (DPV) hosting capacities and co-developed the 230V Transition Implementation Strategy for Queensland, which has contributed to significant reductions in overvoltage across the state. His current focus is on grid visibility and dynamic connections for DER.

Since 2019 he has also had the privilege of contributing to the development of AS/NZS 4777, where he chairs the Testing working group, provides technical analysis and drafting in collaboration with a broad range of stakeholders on a number of EL-042 subcommittees.

Speaker's contact details

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The Energy Researchers at QUT are pleased to invite you in person or online to the hybrid PECT Seminar given by Mr Peter Kilby from Energy Queensland

## A pathway to DER ubiquity: **Distribution voltage management, smart** inverters & dynamic operating envelopes

## Abstract

Australia's DER integration journey still has far to go, with just a third of household rooftops utilised and far fewer community, commercial and industrial rooves tapped. Nonetheless behind the meter solar is now supporting the economics of other consumer owned DER such as flexible loads, electric vehicles and storage.

This talk will review the progress made to date and the technologies needed within distribution networks to enable ubiquitous DER, sharing the results from a recent international survey of distribution utilities (undertaken on behalf of CIGRE C6). Building on the voltage management seminar presented at QUT PECT in May 2019, this talk will delve into the latest developments on Queensland's distribution networks, where reverse flows are increasingly common and dynamic operating envelopes are being introduced to address emerging thermal constraints.

> **RSVP via Eventbrite** COB Thursday 2 November 2023



12:00pm (AEST) - start 12:55 - conclusion Time will be allocated for questions after the presentation

> This seminar will be delivered in person and by livestream Zoom:

Venue: GP-P-413 P-Block, Level 4, Room P413, QUT Gardens Point Zoom Delivery: Join by Zoom Password: 009034