

POWER, ENERGY & CLEAN TECHNOLOGIES

QUT

seminars

Date and Time:

Friday 1 September 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-505

P-Block, Level 5, Room P505, [QUT Gardens Point](#)

Zoom Delivery: [Join by Zoom](#) Password: 180371

Biography

Dr Geoff Walker joined Queensland University of Technology (QUT) as an Associate Professor in 2013. His current research interests lie in applying power electronics to applications in renewable energy (especially PV), power systems, and electric vehicles.

From 2008 to 2013, he worked as a senior electrical engineering consultant in Aurecon's Transmission and Distribution group, Brisbane, across various areas including rail traction, earthing studies, electricity transmission planning, and renewable energy project design and review.

Geoff received his PhD in multilevel converter modulation from the University of Queensland in 1999, and was the power electronics lecturer at the University of Queensland from 1998 to 2007. Geoff has also worked and maintains an active interest in the pro-audio and industrial electronics sectors.

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 Associate Professor Geoff Walker from QUT

DC Side Storage for Grid Connected PV Systems

Abstract

Grid scale renewable energy (RE) projects, such as solar PV and wind farms, are often remotely located in areas of high RE availability, and require significant grid connection and transmission assets. For Renewable Energy Export projects, such as the 20 GWp Suncable project, these transmission assets are massive projects in their own right.

To best utilise the massive balance of project capital investments for any RE project, but particularly for Renewable Energy Export projects, the capacity factors of the attached RE generation will need to significantly rise from the current best figures of 27-29% for PV and 41-47% for wind. This can be achieved by over-sizing the RE installations and co-locating low cost stationary storage.

In this talk I discuss the ideas of oversizing PV installations, DC vs AC side PV storage, and other novel advantages which can flow from DC side PV storage. Both, a local domestic system and the massive Suncable project are used as case studies.

[RSVP via Eventbrite](#)

COB Thursday 31 August 2023

