

Permanent Way Institution NSW

Technical Meeting



Thursday 20th February 2020 at 5.00pm

Sydney Masonic Centre, 66 Goulburn Street, Sydney

middleton
Group

Middleton Group is an Australian owned and operated, specialist electrical consulting engineering organisation, providing turnkey solutions in traction power. Our team has extensive experience managing rail projects, and also offer both traction power and rail-related power systems. We have built a reputation of delivering on client expectations with sound technical capability combined with many years of project execution experience.

The February PWI technical meeting is proudly sponsored by **Middleton Group**

Stephen Goh from Middleton Group will present an overview of the intricacies of the various types of 25kV AC traction power systems that could be adopted within NSW.

Electrifying our future NSW railways - 25kV AC traction power systems

This presentation will provide an overview and outline the intricacies of the various types of 25kV AC traction power systems that could be adopted within NSW including:

- Rail Return system (RR) 1x25kV
- Booster Transformer system (BT) 1x25kV
- Auto Transformer system (AT) 2x25kV
- Static Frequency Converter (1x25kV or 2x25kV)



The adoption of a switched Neutral Section for energy efficiency will also be covered as this eliminates the need for a conventional Neutral Section (i.e. a dead section) for the 2x25kV Autotransformer System.

A 25kV design example will be used to illustrate how to design a 2x25kV Autotransformer system for the year 2056 when the projected populations of Melbourne and Sydney will be 6.8 Million and 7.0 Million respectively. Don't miss out on this unique opportunity to hear from internationally recognised experts as they uncover the future path for electrifying our NSW railways.

The meeting will conclude at 6.30pm, please join us for networking drinks and finger food following the meeting