

Recent changes to transmission line design standards and the impact on new construction and ageing assets in the Pilbara

Asif Bhangor - MIEAust, CPEng, RPEQ, NPER Practice Leader Transmission Line Engineering, SKM



JEEP (Joint Electrical and Electronic Papers)

EVENT DETAILS

Date:

Wednesday, 11 June 2014

Time:

5.30 pm for a 5.45 pm start

(Light refreshments will be Served after the event)

Venue:

Auditorium
Engineers Australia
712 Murray Street
West Perth

Cost:

EA, IET, IEEE and MEMMES
Members: Free
Non-members: \$30.00

Registration:

Essential by COB Tuesday 10
June 2014

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Representing the ITEE Panel



For many decades, the design and construction of transmission lines has been undertaken in Australia and New Zealand by mainly following the "ASCE", "IEC" and "British Standards" combined with specific region based guidelines such as the famous "Cb1".

However, significant work has been carried out in recent years by nearly all major utilities in Australia and New Zealand to develop a unified approach for Transmission Line Design.

As a result, a new Australian Standard AS/NZS 7000:2010 has emerged to the collective sigh of relief from consultants, engineers and other stakeholders involved in this area of work. However, this emerging standard is still linked to the very basic ASCE, IEC and British Standards and has come with particular challenges and constraints that allow engineers to continue using a non-unified approach into transmission line design.

This paper highlights some of the significant changes, challenges and opportunities for engineers constructing new lines in the Pilbara region (cyclonic wind conditions) along with a view of Asset Management Strategies for existing ageing transmission lines. It discusses the electrical, structural and design challenges faced by engineers to address reliability and safety in design and construction and presents an example of a recent award winning safety solution in tower construction.



ABOUT THE SPEAKER



Asif has 15 years' experience in Australia, the Middle East and Turkey on major power projects for power and mining industries, and also on piping systems for the oil and gas in Asif's particular areas of expertise include:

Asif has supported international clients and utilities in design work for customised towers, poles and substation gantries. He worked for the Egyptian Electric Authority on a 400 kV Substation design in Egypt in 1998, and for the Syrian Electric Authority on the 353 km 400 kV transmission line connecting Syria & Turkey in the year 2000.

Transmission line engineering and design, including civil/structural design of towers, poles and foundations (to shop detailing/assembly drawing level), prototyping, load testing, owners engineer for the supply and installation of high-voltage transmission lines and civil/structural integrity assessment of existing transmission infrastructure.

Since 2006, Asif has been working for Rio Tinto and Horizon Power in the design and construction of 220kV transmission lines for cyclonic wind conditions. Asif is also working in integrity assessment of existing 132kV Transmission Assets in Darwin, NT under the impact of cyclonic wind speeds for up to 300km/hr.

Asif has designed and load tested many 220kV and 330kV Transmission Line Steel Towers at the State Grid Test Station in China.

This event is eligible for 1.5 CPD hours

712 Murray Street, West Perth WA 6005
Phone: (08) 9321 3340 | Fax: (08) 9481 4332
Website: www.engineersaustralia.org.au/wa



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