Technical Session incorporating the Electrical Panel Annual Meeting

Smart grids – do they fit into real networks?

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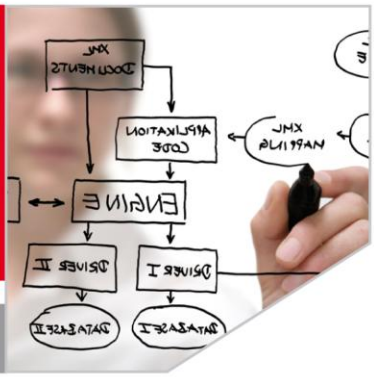
Client Manager and Practice Leader, Sinclair Knight Merz (SKM)



Joint Electrical Electronic Papers

EVENT DETAILS

Date:
Wednesday, 14 November 2012

Time:
5.30 pm

Annual Meeting
This paper will be preceded by a short Annual Meeting for the Electrical Panel reporting the progress and achievement for 2012 and expectations for the year ahead. Please stay behind after the presentation for refreshments and to speak with Laurie Curro and members of your Electrical Panel and JEEP committees.

Venue:
Auditorium
Engineers Australia
712 Murray Street
West Perth

Cost:
Free

RSVP:
Not required

Representing the ITEE Panel

Planning for Smart grids focused initially at the possibilities and cost benefits arising. Road maps have been established with a view of arriving at the best approach to implement smart grid rollouts while maximizing returns. To some extent the only limitations have been the imagination of the architects involved with only a passing focus on their operational difficulties.

The next wave of planning will need to consider potential issues arising when a system crisis occurs and impacts a network where a full smart deployment has occurred. A system crisis could be either through (1) a major storm impacting primarily the distribution system or (2) a major transmission fault causing a large voltage disturbance or (3) a frequency excursion due to generation failure, prevalent in smaller systems such as the SWIS.

Self Healing networks are also being talked about with increasing frequency and are often associated with Smart grid deployment or future network capability. Are they the ultimate in smart grid technology application or is it just core business? Consumers have expectations that faults will be restored as quickly as possible. Is the benefit only an improvement in reliability or are there other benefits that can arise? These are questions that could be put to planners of the future.

The paper aims at raising issues and questions that may need to be addressed during the design and planning of a final rollout of smart grids and other future work that may be needed to support this. The concept of self healing networks will be examined and what is meant by this term. It will analyze the issues and benefits that are espoused using practical examples where possible.

ABOUT THE SPEAKER

Laurie Curro was born in Sydney, Australia in 1960, and is employed by Sinclair Knight Merz in the roles of Client Manager and Practice Leader for Distribution Systems and Smart Grids.. He holds a Bachelor of Electrical Engineering from WAIT (now Curtin University) and a Master of Engineering Science (UWA).

Laurie has over 30 years experience working in the Power Transmission and Distribution industry. He started his career working for Western Power (for 28 years) and has worked in areas that include distribution and power system planning, distribution design, distribution reliability power quality, Transmission and distribution system operations and maintenance and Smart grid planning and architecture.

During his career Laurie has established and managed a distribution control centre and associated systems, created and implemented a reliability management plan for Western Powers distribution network and been involved with innovative designs such as the Distribution package substation development and Smart grid road map.

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