

# 2<sup>ND</sup> ELECTRICAL REGULATORY COMPLIANCE CONFERENCE

**PRACTICAL APPLICATIONS AND IMPACTS OF ELECTRICAL REQUIREMENTS, LEGISLATION AND NEW STANDARDS**

## Featuring Keynote Speakers:

**ANDREW MAUNDER**

Managing Director of Safetylec Management Solutions

Accredited Electrical Safety Auditor  
Chartered OHS Professional with the Safety Institute of Australia



**GARY BUSBRIDGE**

Standardisation Manager of Clipsal by Schneider Electric  
Chairman of the EL001 Wiring Rules Standards Committee



## WHAT YOU WILL GAIN FROM ATTENDING THIS CONFERENCE:

- Learn how to meet the requirements of the AS/NZS 3000 Wiring Rules
- Update your knowledge on best practice and find practical solutions to your electrical design and maintenance issues
- Review the Generator Installation Standard AS/NZS 3010:2016 and it's recent changes
- Delve into the revisions to AS/NZS 3000 and how they will affect your business
- Learn how to comply with regulatory requirements as part of the electrical design process
- Understand how the Australian Energy Market Operator (AEMO) handover will affect you
- Walk-through the recently revised AS 2067-2016
- Examine the risk management requirements within the electrical codes across Australia
- Discover how the latest technologies can help you achieve compliance
- Learn about safety audits, why audits are carried out and what is audited
- Hear about new energy storage standards AS/NZS 5139 and AS/NZS 4755

## WHO SHOULD ATTEND:

- Electrical Engineers and Technicians
  - Engineering Managers
  - Electrical Inspectors & Auditors
  - Electrical Consultants and Contractors
  - Project and Design Engineers
  - Process Plant Operators
  - Safety Facilitators
  - Network Operators
  - Training Managers
  - Compliance Officers
  - Process Safety Managers
  - Government Safety Regulators/ Inspectors
  - Mine Safety Engineers
  - Risk Assessors
- All engineering professionals with an interest in electrical regulatory compliance

**29<sup>th</sup> & 30<sup>th</sup>  
November 2017**

**Novotel Perth Langley  
Perth, Australia**

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*See back page for details*

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# INTRODUCTION TO 2<sup>ND</sup> ELECTRICAL REGULATORY COMPLIANCE

Understanding all of the different electrical acts and regulations can be a minefield as each state has its own variations. Many regulatory requirements have changed during the past few decades affecting electrical industry practitioners in electrical consulting, electrical contracting, operations and maintenance, manufacturing, and the electricity utilities. This is an interesting and important subject area on which there should be more discussion and education as it drives improved safety and efficiency outcomes in industry.

The landscape of electricity distribution and consumption in Australia is changing with technological advancements in energy storage and alternative renewable power such as solar and batteries shifting the market. As the electrical industry changes, Standards Australia has been releasing numerous new roadmaps and editions of electrical standards to help support the transition for electricity networks.

The aim of this conference is to help industry in Australia to understand the role of the various regulators in the different states, and how they can best achieve regulatory compliance. The key issues in achieving compliance throughout all the Australian states will also be identified.

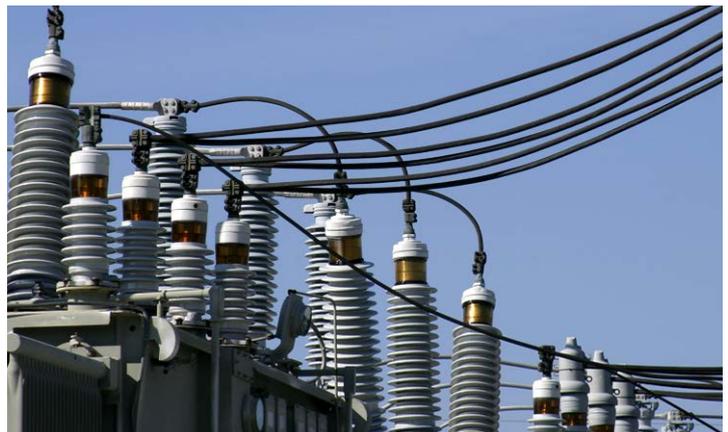


## CONFERENCE DAY ONE – 29<sup>th</sup> November 2017

<b>8.00am</b>	<b>Registration</b>	<b>11.15am</b>	<b>Regulative Change in Western Australian Energy Market</b>
<b>8.15am</b>	<b>Opening Address</b>	<b>Session 4</b>	<b>Wayne Proud</b> – Network Access Operations Officer, Western Power Change is upon us in Western Australia, the electricity network is in the process of being handed over to the Australian Energy Market Operator (AEMO). What does this mean to the electrical participants? With his years of expertise and knowledge gained from the utilities industry, Wayne Proud will explore what the changes will mean to Network Operators and customers in Western Australia.
<b>8.30am</b>	<b>Energy Storage Standards – An Overview of AS/NZS 5139 and AS/NZS 4755</b>		<b>Lunch – 12.00pm</b>
<b>Session 1</b>	<b>Jeremy Whaley</b> – Energy Solutions Manager, Horizon Power This presentation will discuss two emerging Australian Standards: AS/NZS 5139 – Electrical Installations – Safety of battery systems for use with power conversion equipment and AS/NZS 4755 – Demand response capabilities and supporting technologies for electrical products. The presentation will give a brief overview of these standards, the issues they are trying to address and the implications for the industry.		<b>1.00pm</b>
<b>9.15am</b>	<b>Catastrophic Failure of High Voltage Equipment</b>	<b>Session 5</b>	<b>AFTERNOON WORKSHOP</b>
<b>Session 2</b>	<b>Karl Haubner</b> – Applications Engineer, Doble Engineering Company Catastrophic failure of high voltage equipment can cause death, severe injury and major damage to assets. It presents a significant danger to utility staff and the Public Local Safety Regulations and acts require utilities and operators of high voltage equipment to ensure, so far as is reasonably practicable the safety of employees and other persons who may be affected by their activities. The recently released CIGRE Technical Brochure 660 “Saving through optimised maintenance in air insulated substations” provides guidance for utilities and asset owners on where and how savings in substation expenditure can be achieved through a wide range of measures with a holistic approach to asset management. The presentation will examine some of the driver for reducing maintenance costs without compromising system reliability. Simple, non-intrusive and effective method for early detection of defects such as DGA, PD detection using online RFI and UHF techniques, acoustic techniques, corona camera surveys, thermographics etc. are presented in detail.	<b>WORK SHOP</b>	<b>Includes Afternoon Tea</b>
	<b>Morning Tea – 10.00am</b>		<b>The Wiring Rules: Revised and Published</b>
<b>10.30am</b>	<b>Consideration of Touch Voltage and Arc Flash in Electrical Design for LV and HV Systems</b>		<b>Gary Busbridge</b> – Standardisations Manager, Clipsal by Schneider Electric What has changed? What has been added? This is an opportunity to find out the facts to help the electrical industry to design, install or maintain an electrical installation in the most up-to-date manner. The revision provides all the necessary information to help drive your business into the future. Find out the why's and wherefores to the revision. This is an insight into the development of the AS/NZS 3000 Wiring Rules that you can't miss. The Generator Installation standard, AS/NZS 3010:2016 has just been published and this has been updated in the new Wiring Rules revision. This conference will also provide an insight into the changes involved with the Generator Installation standard.
<b>Session 3</b>	<b>Rahim Janfada</b> – Director, Water Services Engineering It seems that the requirements of AS 3000 for LV Systems and AS 2067 for HV Systems on touch voltage compliance has totally been lost in the latest electrical design and construction processes. Higher touch voltages and lack of protection coordination between protective devices in a power distribution network can result in higher arc flash levels which could increase the Arc Flash Category of switchboards to dangerous levels. It should be kept in mind that the electrical design of a LV or HV power distribution system for a plant (large or small) does not start with just producing wiring diagrams and schematic diagrams, it must start with following some specific steps to ensure full compliance with the rules and regulations specified in the relevant standards.		<b>Closing – 4.30pm</b>



**NETWORKING SESSION:**  
**Cocktail Hour – 4.30pm to 5.30pm**  
An hour dedicated for all attendees to meet and socialise with experts and industry peers at the 2nd Electrical Regulatory Compliance Conference Cocktail Hour.



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## CONFERENCE DAY TWO – 30<sup>th</sup> November 2017

### 8.30am MORNING WORKSHOP

**Session 6**  
**Includes Morning Tea**

#### WORK SHOP Electrical Codes of Practice – what does this mean?

**Andrew Maunder** – Managing Director, Safetylec Management

The corporate and social worlds in which we operate demand safety compliance. All states and territories, including the commonwealth have legislation, codes of practice or standards, to assist in maintaining due diligence. At its simplest, due diligence means take care, it means taking every reasonable precaution to protect the safety and welfare of workers and others.

One of the many ways we can assist in our due diligence of electrical work is through a code of practice. A code of practice is a document providing practical guidance on how to comply with general or specific duties along with recommendations for industry best practice.

The paper intends to show participants the different codes in different states and territories, where codes of practice sit in the regulatory ladder, why they have been developed, how we use them, and what does this mean for employers and workers. The paper will further examine the risk management requirements within the codes.

*The paper will be presented as an interactive workshop with the audience.*

### Lunch – 12.00pm

### 1.00pm Electrical Arc Flash Hazards in Mining

**Session 7**  
**Patrick Byrne** – Inspector of Mines – Electrical Engineer, Department of Mines, Industry Regulation and Safety

Analysis of recent arc flash incidents in the mining industry highlights the need for safety awareness and compliance to regulations and standards when designing, constructing, commissioning, operating, and maintaining electrical installations.

Some arc flash incidents will be reviewed from the Regulator's perspective to examine direct causes and contributory factors, and what actions are required by managers, electrical engineers, electrical supervisors, and electrical workers involved in the operation and maintenance of electrical installations and equipment.

All conference papers are reviewed and selected for their high quality and technical value by our panel of specialists experienced in the theory and practice of electrical engineering.

## Sponsorship Opportunities

Representing your business at the 2nd Electrical Regulatory Compliance Conference will provide you the opportunity to reach key decision makers from a multitude of industries.

For more information on sponsorship and exhibition opportunities please contact IDC Technologies via email [conferences@idc-online.com](mailto:conferences@idc-online.com)

### 1.45pm Protection of Transformers & Reactors Against Fire & Explosion Under AS 2067-2016

**Session 8**  
**Gabriel Ojeah** – Electrical Engineer, Aptus Power

Power transformers play a vital role in electrical power systems. In fact, AC prevailed over DC in the battle between AC and DC advocates in the 19th century mainly due to the invention of the power transformer. Power transformers however pose some fire and explosion risks. Though power transformers do not constitute the main cause of fires and explosions in substations, the impact of fires and explosions originating from transformers can be huge.

Against this backdrop, it is understandable that Australian Standard 2067-2016 has made substantial changes to its predecessor (AS 2067-2008) in order to improve protection of transformers against fire and explosion.

This paper will examine these changes and their implications.

### Afternoon Tea – 2.30pm

### 3.00pm Statutory Requirements, Duty of Care, Systems of Work and Procedures

**Session 9**  
**Paul Egan** – Senior Electrical Training Specialist, Competency Training

Within Western Australia the two main legislative requirements for electrical workers safety are the Mine Safety Inspection Act and Regulations and the Occupational Safety and Health Act and Regulations.

All of these legislative documents contain an overriding section being the Duty of Care. The Duty of Care contains a requirement for "Systems of Work" (i.e. procedures). The Duty of Care has provisions for employers to maintain a safe work place. This really means an employer must provide a safe work place based on, as a minimum requirement, procedures reflecting the Australian Standards relating to the type of work in question.

This presentation focuses on the connection between "Duty of Care" provisions (of Legislation) "Systems of Work" and how these requirements relate to electrical workers' day to day activities. Consideration is also given to the employers' responsibilities, so as to ensure their electrical workers are correctly trained and verified in the area of electrical safety as required by this legislation.

### 3.45pm Discussion Panel

**Session 10**  
This session will give delegates the opportunity to ask presenters questions they have regarding their industry or applications which may directly benefit their projects.

### Closing – 4.30pm



## KEYNOTE SPEAKERS

### GARY BUSBRIDGE

Standardisations Manager,  
Clipsal by Schneider Electric

Gary has been in Clipsal's employ for over 40 years, after graduating from the University of South Australia in 1973. Predominantly, his responsibility was Design Manager for all Australian Electrical Accessories, including aspects of Data and C-Bus, Export and Industrial design, development, product maintenance and prototyping.

Inevitably, this led to involvement with the Standards Association of Australia and membership of committees and working groups from 1998.

His role of Standardisation Manager is to ensure Global and Regional Standards are aligned to the electrical contracting business and electrical accessories manufacture. This also includes relevant IEC standards and applications. In November 2011 he was made chairman of the EL001 Wiring Rules standards committee.



### ANDREW MAUNDER

Managing Director,  
Safetylec Management

Andrew is the Managing Director of Safetylec Management Solutions. Andrew began his career as an apprentice electrical fitter mechanic in 1982 and quickly worked his way up to a management position. During his career, he has always been heavily involved in the health and safety needs and requirements of the industry and has also furthered his studies in health and safety and business management. Andrew left the contracting industry in 2000 to establish Safetylec Management Solutions. Safetylec provides clients with professional health and safety services.



#### REGISTRATION FORM:

### 2<sup>ND</sup> ELECTRICAL REGULATORY COMPLIANCE CONFERENCE

29th & 30th November 2017 – Novotel Perth Langley, Perth, Australia

Simply complete this registration form online or return by email

#### EARLY BIRD OFFER:

10% off the conference fee for registrations received on or before 1<sup>st</sup> November 2017  
– SAVE \$179

AND  
/OR

#### 3 FOR 2 OFFER:

Register 3 delegates and only pay for 2  
– SAVE UP TO \$1795

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		Email:	
	2	Mr/Ms:	Job Title:
		Email:	
	3	Mr/Ms:	Job Title:
		Email:	

### 2. HOW DID YOU HEAR ABOUT THIS EVENT?

- Received an email from IDC
  Received a brochure in the mail
  Searched online (Google, Yahoo etc)
- Recommended by a friend/colleague
  Magazine advertisement/insert (please specify which magazine below)
- Other (please specify) \_\_\_\_\_

### 3. REGISTRATION & PAYMENT DETAILS

Prices shown are inclusive of GST

#### 2<sup>ND</sup> ELECTRICAL REGULATORY COMPLIANCE CONFERENCE – 29th & 30th November 2017

- OPTION 1: Early Bird Discount 10% OFF**  
 – Book before 1<sup>st</sup> November (SAVE \$179.50) \$1615.50 x \_\_\_\_\_ delegates = \$ \_\_\_\_\_
- OPTION 2: Standard Rate (NO Early Bird Discount)**  
 – Book after 1<sup>st</sup> November \$1795.00 x \_\_\_\_\_ delegates = \$ \_\_\_\_\_
- OPTION 3: 3 for 2 Offer AND Early Bird 10% OFF**  
 – Book before 1<sup>st</sup> November (SAVE \$2154) 3 delegates: 2 x \$1615.50 = \$3231.00 = \$ \_\_\_\_\_
- OPTION 4: 3 for 2 Offer AND Standard Rate (NO Early Bird)**  
 – Book after 1<sup>st</sup> November (SAVE \$1795) 3 delegates: 2 x \$1795 = \$3590 = \$ \_\_\_\_\_

**PLEASE NOTE: Full payment is required prior to the commencement of the conference.** TOTAL DUE = \$ \_\_\_\_\_

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## GENERAL INFORMATION

#### Confirmation Details

A confirmation email and invoice will be sent to delegates within 3 days of receiving the registration.

#### Cancellation Policy

A fee of 20% cancellation will apply for cancellations received 7 – 14 days prior to the start date of the conference. Cancellations received less than 7 days prior to the start date of the conference are not refundable, however substitutes are welcome.

#### Venue

Novotel Perth Langley Hotel  
221 Adelaide Terrace, Perth WA 6000  
Phone: 08 9221 1200

#### Accommodation

The conference venue has accommodation available. Contact the venue directly on 08 9221 1200 and mention the conference when booking to receive the best room rate available.

#### Food and Beverages

All lunches, morning and afternoon refreshments are included in the registration fee.

#### Unable to Attend

If you are unable to attend the full conference program, contact us for details to attend individual sessions or to purchase the Conference Resource Kit.

#### Enquiries

1300 138 522 or conferences@idc-online.com

## REGISTRATIONS

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