



ELECTRICAL INSPECTIONS

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Front Cover: Customers switchboard found energised during the smart meter rollout in Victoria. The brick was used to hold everything in place .



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Editors bit

Dear Members,

The Draft IEI Constitution Proxy vote in November 2011 failed by 15 votes, the Institute required a minimum 75% yes vote by the membership and the administration was unable to obtain this vote to pass the Constitution to ASIC for ratification.

A number of members corresponded with the IEI administration regarding issues with the Draft IEI Constitution document and the Directors have provided further information for all members on page 4 of this edition of Electrical Inspections.

The current Board of Directors is seeking further involvement of members with regard to the running of the Institute into the future, without members volunteering to help in the running of the Institute, your Institute will not exist, please take the time to consider volunteering for a small role to assist the administration and learn along the way.

The Australian Standard Checklist has been updated so as all members can keep up to date with latest Standards they may require to perform their Inspections.

A questionnaire has been published in this edition and any member interested in responding may do so anonymously, all I ask is that all members take the time to consider the questions posed and respond accordingly to any or all questions. Email or fax your completed questionnaires to the IEI Secretary. I will wait until the end of March 2012 to collate the answers and advise all members in the next edition of Electrical Inspections as to the outcome.

Regards,

*David Bibby
Editor*



IEI Constitution

In October 2011 the IEI Secretary called a vote of all members to replace the “Memorandum & Articles of Association” with a new “Constitution”. Despite the Secretary’s and Board of Directors best efforts to obtain a 75% vote or better to bring the Constitution into effect and ratify the document with ASIC, Members only provided a 71% vote to approve the document.

Two members raised concerns with the wording of two clauses and their reasons for the concerns. The Secretary then sent a letter to all members suggesting proposed changes to these clauses which was met with further issues from more members.

The Institute requires an updated Constitution which governs the way the Directors administer the Institute, without this updated Constitution we are bound to run the Institute to the out of date Memorandum and Articles of Association.

The Draft Constitution was put together by a Company that specialises in writing Constitutions, the draft Constitution supplied to all Members was written to encompass all requirements of the 2001 Corporations Act to enable the Institute to operate within the law.

Therefore, the Directors have decided to amend the draft document supplied to members in 2011 and resubmit the new draft to members for another vote. This will hopefully occur in March-April 2012 after we receive the amended document from “Company Planners”.

The two clauses that members raised concerns about were:

3.1 Number of Directors

The Company must have at least three and not more than ten Directors, at least two of which must reside in Australia, unless the Company in general meeting otherwise determines.

9.2 Classes of Membership (b)

(iv) Senior Members

The following shall be eligible for membership as Senior Members:

- (A) Persons who are retired from full-time and part-time employment;
- (B) Are over 65 years of age;
- (C) May only nominate for a Director’s position if a Corporate membership had been held prior to applying for “Senior Member” membership status; and
- (D) Membership Fee is set at 50% of the annual membership fee and nomination fee remains the same.

Changes to these clauses were discussed at the last two Board of Directors meetings and the Directors offer the following changes that will appear in version 2 of the draft constitution for members to ratify by Proxy vote shortly.

3.1 Number of Directors

The Company must have at least three and not more than ten Directors, all of which must reside in Australia, unless the Company in general meeting otherwise determines.

9.2 Classes of Membership (b)

(iv) Senior Members

The following shall be eligible for membership as Senior Members:

- (A) Seniors Card Holder (Government Issued); *or*
 - (B) Over 65 years of age
- and
- (C) May only nominate for a Director’s position if a Corporate membership had been held prior to applying for “Senior Member” membership status; and
 - (D) Membership Fee is set at 50% of the annual membership fee and nomination fee remains the same.

If any member wishes to advise any further amendments to the Draft Constitution, please advise the Secretary before the 28th February 2012 so as the Directors can approve and add to the 2nd draft before asking members to vote again.



UNSAFE or TECHNICAL ISSUES

Many Members have discussed issues recently as to whether some clauses in the current AS3000:2007 including Amendments would be classified as Unsafe defects or Technical defects if found on a property that is currently on supply.

Missing M.E.N link at a main switchboard	Technical	Unsafe
Main Earth Conductor disconnected at Earth Stake (Water Pipes for old systems)	Technical	Unsafe
Equipotential bonding conductor has not been connected to metallic water pipe system installed within the building and metallicly continuous to the ground.	Technical	Unsafe
Meter Box, Metal case switchboard or Metallic wiring enclosure not earthed	Technical	Unsafe
Provision to isolate all active supply conductors not made	Technical	Unsafe
Switchboard enclosure not arranged to protect against the spread of fire	Technical	Unsafe
More than one MEN connection if common earthing installed	Technical	Unsafe
Main neutral conductor connected directly to an RCD (Switched Neutral)	Technical	Unsafe
Main neutral and main earthing conductors at the neutral bar or link are not connected in the appropriate sequence or legibly and indelibly marked.	Technical	Unsafe
Switchboard is not installed in a dry and well ventilated location	Technical	Unsafe
More than one MEN connection effected in one outbuilding	Technical	Unsafe
Main neutral conductor connection to neutral bar or link not made in the required manner.	Technical	Unsafe
<i>Other questions for discussion</i>		
Should a Tattoo Parlour 's electrical installation comply with the requirements of AS3003—Body protect areas since equipment contained within and used comes into contact with a human body	Yes	No
Should a metal meter box remote from the customers switchboard and earthed by a separate earth stake have an MEN connection at the sealed Neutral link on the meter panel .	Yes	No

I have listed those issues discussed below and invite members to circle the response they feel each individual issue is unsafe or technical in nature with respect to a property that is on supply.

If there are any other issues members would like to raise, I will place them in the next edition of "Electrical Inspections" for all members consideration.

I will also publish any answers from the above checklist if any are received.



Victorian Members meeting update

Inspection Checklist meetings that have been held:

September 2011—Low Voltage Switchboards

November 2011—Builders Temporary supply Poles (BTS) (Overhead and Underground supply)

Below is a draft of the schedule of information nights proposed for Victorian members.

Please note this is not final and all details will be updated on the website and communicated to members as each information nights details are finalised.

The Directors have agreed to run as many Inspection Checklist evenings as required to enable the drafting of as many Checklists as possible this year. The Institute hopes to prepare an information booklet of these checklists for on the job and future reference. The Institute is hoping to cover the specialist fields of Hazardous, High Voltage and Medical some time in the future to add to the information booklet for reference.

Although these checklists are being written for Victorian Inspectors, if Interstate members would like to edit these checklists to suit their states Act, Regulations and S.I.R practices, the IEI Secretary can assist with this.

Date	Venue	Theme	Organiser/s	Organised Y/N
February 22nd	NECA 370	Inspection Checklist draft – Temp in Perms	D Bibby	Yes
March 20,21 or 22	C u m m i n s Generators	Inspection Checklist draft – Generators - Standby	P. Giannopoulos	
April 24	Hager B&R	Hager Presentation & ESV Q&A session	D. Margerison D. Bibby	
May 17	Fronius & CEC	Solar information evening	P. Giannopoulos & D. Margerison	
June 19, 20 or 21	? Generators	Inspection Checklist draft – Generators - Standalone	P. Giannopoulos	
July 17,18 or 19	Techsafe	Inspection Checklist draft – Installation upgrades	D. Bibby	
August	TBA	TBA		
September	Hager B&R	TBA		
October 13	Victoria	AGM 2012	D. Bibby	
Nov	TBA	TBA		



Published Australian Standards update.

Standard	Description	Current Version	Amendments
AS/NZS 3000	Electrical installations—Wiring Rules	2007	Amdt 1: Published 2009 Amdt 2:
AS/NZS 3001	Electrical installations - Transportable structures and vehicles including their site supplies	2008	
AS/NZS 3002	Electrical installations - Shows and carnivals	2008	
AS/NZS 3003	Electrical installations - Patient areas	2011	
AS/NZS 3004.1	Electrical installations - Marinas and recreational boats - Marinas	2008	
AS/NZS 3004.2	Electrical installations - Marinas and recreational boats - Recreational boats installations	2008	
AS 3007.1	Electrical installations—Surface mines and associated processing plant—Scope and definitions	2004	
AS 3007.2	Electrical installations—Surface mines and associated processing plant—General protection requirements	2004	
AS 3007.3	Electrical installations—Surface mines and associated processing plant—General requirements for equipment and ancillaries	2004	
AS 3007.4	Electrical installations—Surface mines and associated processing plant—Additional requirements for specific applications	2004	
AS 3007.5	Electrical installations—Surface mines and associated processing plant—Operating requirements	2004	
AS/NZS 3008.1	Electrical installations - Selection of cables - Cables for alternating voltages up to and including 0.6/1 kV - Typical Australian installation conditions	2009	Amdt 1: Published 2011
AS/NZS 3010	Electrical installations - Generating sets	2005	
AS/NZS 3012	Electrical installations - Construction and demolition sites	2010	
AS/NZS 3017	Electrical installations - Verification guidelines	2007	
AS/NZS 3018	Not Available		
AS/NZS 3019	Electrical installations - Periodic verification	2007	
AS/NZS 2067	Substations and high voltage installations exceeding 1 kV a.c.	2008	Amdt 1: Published 2010
AS/NZS 3760	In-service safety inspection and testing of electrical equipment	2010	Amdt 1: Published 2011
AS/NZS 4761.1	Competencies for working with electrical equipment for hazardous areas (EEHA) - Competency Standards	2008	



Published Australian Standards update

Standard	Description	Current Version	Amendments
AS/NZS 4761.2	Competencies for working with electrical equipment for hazardous areas (EEHA) - Guide to assessing competency	2008	
ASNZS 5033	Installation of photovoltaic (PV) arrays	Under revision	Amdt 1: 2009
ASNZS 4777.1	Grid connection of energy systems via inverters - Installation requirements	2005	
ASNZS 4777.2	Grid connection of energy systems via inverters - Inverter requirements	2005	
ASNZS 4777.3	Grid connection of energy systems via inverters - Grid protection requirements	2005	
ASNZS 4836	Safe working on or near low-voltage electrical installations and equipment 2011	2011	
ASNZS 4741	Testing of connections to low voltage electricity networks 2010	2010	
ASNZS 3439.1	Low-voltage switchgear and controlgear assemblies - Type-tested and partially type-tested assemblies	Under revision	
ASNZS 3439.2	Low-voltage switchgear and controlgear assemblies - Particular requirements for busbar trunking systems (busways)	2002	
ASNZS 3439.3	Low-voltage switchgear and controlgear assemblies - Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use - Distribution boards (IEC 60439-3:1990, MOD)	2002	
ASNZS 3439.4	Low-voltage switchgear and controlgear assemblies - Particular requirements for assemblies for construction sites (ACS)	2009	
ASNZS 3439.5	Low-voltage switchgear and controlgear assemblies - Particular requirements for assemblies for power distribution in public networks	2009	
AS 6002	Domestic electric meter enclosures	1999	
AS 60044.1	Instrument transformers - Current transformers	2007	Amdt 1: 2012
AS 60044.2	Instrument transformers - Inductive voltage Transformers (IEC 60044-2:Ed.1.2 (2003) MOD)	2007	



Published Australian Standards update

Standard	Description	Current Version	Amendments
AS/NZS 60079.0	Electrical apparatus for explosive gas atmospheres - Equipment—General requirements	Under revision	
AS/NZS 60079.1	Electrical apparatus for explosive gas atmospheres - Equipment protection by flameproof enclosures 'd'	2007	Amdt 1: 2008
AS/NZS 60079.1.1	Flameproof enclosures 'd' - Method of test for ascertainment of maximum experimental safe gap	2002	
AS/NZS 60079.2	Electrical apparatus for explosive gas atmospheres - Equipment protection by pressurized enclosure 'p'	2007	
AS/NZS 60079.5	Electrical apparatus for explosive gas atmospheres - Equipment protection by powdered filling 'q'	2007	
AS/NZS 60079.6	Electrical apparatus for explosive gas atmospheres - Equipment protection by oil-immersion 'o'	2007	
AS/NZS 60079.7	Electrical apparatus for explosive gas atmospheres - Equipment protection by increased safety 'e'	2006	
AS/NZS 60079.10	Electrical apparatus for explosive gas atmospheres - Classification of hazardous areas (IEC 60079—10:2002 MOD)	2009	
AS/NZS 60079.11	Electrical apparatus for explosive gas atmospheres - Equipment protection by intrinsic safety 'i'	2006	
AS/NZS 60079.12	Electrical apparatus for explosive gas atmospheres - Classification of mixtures of gases or vapours with air according to their maximum experimental safe gaps and minimum igniting currents	2000	
AS/NZS 60079.25	Intrinsically safe systems	2011	
AS/NZS 60079.26	Equipment with equipment protection level (EPL) Ga	2007	
AS/NZS 60079.27	Explosive atmospheres—Fieldbus intrinsically safe concept (FISCO)	2008	
AS/NZS 60079.28	Protection of equipment and transmission systems using optical radiation	2007	

If members require any other Australian Standards to be listed here for future reference, please email the IEI Secretary or send a note to the Secretary at the Postal address and we will add it to this list. The Institute will attempt to keep the list up to date so as all members can be notified if an update is published on any of the Standards in the list.

I did not add any prices to the list of Standards for two reasons:

1. SAI Global may change the prices without notice and;
2. I did not want any members receiving a shock at the cost of Standards.



NOTICES

VACANCIES

EL-042 Standards working committee

The Board of Directors invites interested members to apply to the Institute as our representative on the EL-042 committee, the Institute has discussed the possibility of an IEI representative with Standards Australia and if a suitable candidate is found the Institute will lobby strongly for a seat on this committee.

EL-042 Standards working committee encompasses the following Standards:
ASNZS 5033, ASNZS 4777.1, ASNZS 4777.2 & ASNZS 4777.3.

An application form to become an IEI external committee representative is available on the website or from the IEI Secretary. Please consider the opportunity and experience that comes from being actively involved in the formulation of Australian Standards.

EL001-12 Standard working committee

The Board of Directors invites interested members to apply to the Institute as our representative on the EL001-12 committee, the Institute has a vacant seat on this committee with Standards Australia.

EL-001-12 Standards working committee encompasses the following Standards:
ASNZS 3002—Electrical installations - Shows and carnivals

An application form to become an IEI external committee representative is available on the website or from the IEI Secretary. Please consider the opportunity and experience that comes from being actively involved in the formulation of Australian Standards.

Electrical Connection Magazine Contributor.

The Board of Directors invites interested members to apply to the Institute as our quarterly contributor to the "Electrical Connection Magazine. This position requires a national perspective article be submitted to the editor of Electrical Connection Magazine. This articles submitted previously were under the Title "Ask George", and were written by the Institutes representative George Bosomworth.

Here's your chance to become famous and have your own column "Ask ????".

IEI Journal "Electrical Inspections".

The Board of Directors invites interested members to notify their interest in becoming the Editor of the Institutes publication "Electrical Inspections". The IEI Secretary took over the publishing role in 2009 when our previous external publisher was unable to continue. Due to current work, family and IEI commitments the IEI Secretary is unable to continue in this role. Electrical Inspections is produced with Microsoft Publisher and converted to .pdf before being sent to members when published. Without an interested party to take over this job, "Electrical Inspections" will not be published in the future



To all Members of the IEI

After discussions with members from other states in Australia, it appears that many members are interested in finding out how Electrical Inspection is currently conducted in other states of Australia.

Therefore, I am asking Members from States other than Victoria who can supply information regarding the Electrical Inspection duties in their state, to send that information to the Secretary of the IEI so as we can put a document together that maps if, when and how Electrical Inspections are performed around the country, what legislation is relevant at their state level and the Electrical licensing body for their state.

As I receive information from members in each state, I will update the document and place it on the website on a new page in the "About Us" section of the website.

I still require information from the following States:

South Australia
Tasmania
Western Australia
Northern Territory

All information can be sent to:

secretary@iei.org.au

Or;

Secretary
PO Box 411
Essendon North
Victoria 3041

Thank you,

Secretary
Institute of Electrical Inspectors

Articles

If members have issues in their state or know of information that is relevant to all members across Australia, please email the IEI Secretary so as this information can be added to the website immediately for all members to benefit from.

Any members who wish to include an Article or information relevant to all members in the next edition of the Journal, please email:

IEI Secretary: secretary@iei.org.au

IEI Directors: directors@iei.org.au

(Yes, you can now contact all the IEI directors instantly via one email address)

Regards,

David Bibby
IEI Secretary