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From: [redacted] [redacted]@eivic.com.au]
Sent: Monday, 7 October 2019 8:50 PM
To: Consultation
Subject: RE: Reminder for submissions - Proposed Electricity Safety (General) Regulations 2019 - Regulatory Impact Statement and proposed Regulations available

Please find my comments attached.
I apologies for the slightly late response.

Regards,

[redacted]

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Summary of Comments Form

PC Draft Electricity Safety (General) Regulations 2019	
Respondee	[redacted]

No.	Page No.	Regulation No.	Para/Fig/ Table No.	Regulation	Comment	Recommendation
1.	7	105		**break-away device** means a mechanical device designed to disconnect an overhead electric line from its supporting structure and the electricity supply when the electric line is subjected to an external stress that exceeds the tensile or design strength of the electric line;	Break away devices are also used in underground installations, particularly for electrical structures installed in the vicinity of vehicles e.g. road reserves. The definition may result in confusion.	**break-away device (overhead)** means a mechanical device designed to disconnect an overhead electric line from its supporting structure and the electricity supply when the electric line is subjected to an external stress that exceeds the tensile or design strength of the electric line;
2.	9	105		**emergency lift** means a lift intended to operate in an emergency;	To maintain the intent of the Wiring Rules I would recommend that the definition is either replicated from the NCC or better still, deleted from these regulations. There is only two references to the term in the Regulations being the definition and on page 66 in Regulation 247(1) (iii). These references do not alter the Wiring Rules requirements so appear to be irrelevant.	Delete this definition
3.	10	105		**fire pump** means a fire hydrant booster pump, a pump for an automatic sprinkler, water spray, deluge or similar fire extinguishing system and— (a) includes a pump for fire hose reels if those fire hose reels are the only means of fire protection for a premises; (b) does not include a pump used to establish and maintain pressure in a fire hydrant or fire extinguishing system provided that any fire hydrant or fire extinguishing system does not rely on that pump for its water supply;	There is no reference to the fire pumps energy source e.g. electric or diesel. The regulation should only apply to electric driven fire pumps.	**fire pump** means an electrically driven fire hydrant booster pump, a pump for an automatic sprinkler, water spray, deluge or similar fire extinguishing system and— (a) includes a pump for fire hose reels if those fire hose reels are the only means of fire protection for a premises; (b) does not include a pump used to establish and maintain pressure in a fire hydrant or fire extinguishing system provided that any fire hydrant or fire extinguishing system does not rely on that pump for its water supply;
4.	28	207 (4)(b)		is only capable of being operated by an	This is too open for individual interpretation.	Change the wording to indicate a suitable

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				authorised person (within the meaning of the Australian/New Zealand Wiring Rules) and is labelled for operation by authorised persons only; and	"is only capable" implies that no one that was not authorised could operate the switch regardless of the arrangement used to secure the switch. My concern would be a padlock that was installed by the REC could be removed by a grinder or bolt cutters and this would mean the REC has breached these regulations.	arrangement, or at least reword to show intent.
5.	32	213 (3)		Any underground consumer's mains that enter into a switchboard or metering enclosure installed on a construction or demolition site must, from the point it exits the ground up to the point it enters the enclosure, be of a construction that meets the mechanical protection classification of WSX3 specified in Appendix F of AS/NZS 3013.	This will have significant impact on the arrangement of BTS in Perms and for no significant justification. Historically OCEI / ESV allowed 300mm exposed HD conduit between the top of the water pipe upstand to the underside of the metering enclosure. The conduit was "cradled" in the enclosure upright steel support which provided additional impact protection. In recent years ESV reduced this distance to 100mm. This is still an achievable figure. Reducing this to zero has the potential of the unintended consequence of unearthed metal behind meter panels. It will also be difficult to achieve as the whole point of these brackets was to allow some limited movement allowing the box to be located on complete brickwork.	Reword to suit current arrangements.
6.	46	225		**Construction of consumer's mains within a structure** If an electricity supplier's underground service lines are protected by protective equipment installed at an electrical installation's metering point or main switchboard, any consumers mains that enters into a building or structure must, from the point it enters the building or structure up to the housing or mounting containing the protective equipment, be of a construction that meets the mechanical protection classification of WSX3 specified in Appendix F of AS/NZS 3013.	This is an unreasonable expectation. WSX3 is too much as a mandatory requirement. The obligation needs only be in accordance with the Wiring Rules. The installation of a WSX3 wiring system will add a significant increase in cost for a very small benefit. I have never seen a cost benefit analysis to justify the costs. There are practical aspects to consider as well. This issue cross-relates to the proposed regulation 213 and these are both asking too much.	Delete regulation. The Wiring Rules provide enough obligation on the construction of unprotected consumer mains.
7.	46	227(2)		**Insulation resistance of underground consumer's mains** When existing underground consumers mains are reconnected to electricity supply, the	I accept that new consumer mains should have an insulation resistance greater than the current requirements but this is an unreasonable expectation to place on	Delete this regulation Delete Table 227 Delete 239

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				insulation resistance— (a) between the conductors of underground consumers mains; and (b) between the conductors of underground consumer's mains and earth; and (c) if the consumer's mains conductors are surrounded by a metallic sheath, between the conductors of underground consumer's mains and the metallic sheath— must not be less than the 5 megohms when tested with a 500V d.c. insulation resistance tester.	existing installations. By mandating a retrospective obligation you will cause the replacement of existing consumer mains that were installed and verified to the Wiring Rules at the time of initial connection. While I note that the proposed values are in accordance with the SIR's, it is not reasonable to use the SIR's as a justification for the new values. The MECS apply judgements on a case by case basis in situations where the value of existing mains is less than 5M ohms but more than 1 M ohm and you will now remove that option. There is no safety outcome to justify the new values either. 1M ohm is only 23 micro amps of leakage current.	
8.	61	241		**Testing of supply network neutral conductors** If electrical installation work includes the connection or reconnection of a low voltage consumer billing meter or a supply network neutral conductor, the electrical installation work must be tested in accordance with AS 4741 to ensure that any voltage measured on the supply network neutral conductor is no greater than 6 volts after certification and before the work is first used.	The confirmation of a network neutral's integrity can only be performed by the network personnel. It can only be done with supply available and connected. This is not necessarily the situation when a meter is installed or altered. Power of Choice may be restricted by this regulation.	Amend the regulation to say:- If electrical installation work includes the connection or reconnection of a low voltage consumer billing meter or a supply network neutral conductor, the electrical installation work must, at the time of connection or reconnection, be tested in accordance with AS 4741 to ensure that any voltage measured on the supply network neutral conductor is no greater than 6 volts after certification and before the work is first used. Or similar
9.	61	242		**Testing of photovoltaic arrays** If electrical installation work includes electrical work on a photovoltaic array or any protective devices, switchgear, controlgear, circuit breakers, wiring systems, earthing systems or battery storage devices associated with the photovoltaic array, the electrical installation work must be tested in accordance with AS/NZS 5033 to verify that the installation work complies with AS/NZS 5033 after the work is completed and before the work is placed into service.	This regulation is far too restrictive. If an REC determines that they will not be performing PV work in their business, for whatever reason, they should not be forced to become competent with the standards related to that PV work. Doing switchboard replacements does not require competency knowledge of AS/NZS 5033.	Delete.
10.	65	247(h)		**Electrical installation work that must be inspected** For the purposes of section 45 of the Act,	As is the case with the existing regulations, this specifically excludes intrinsically safe systems (IS) from the need to be inspected.	Include a sub-regulation modelled on 247(2) such as :- For the purposes of section 45 of the Act,

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				prescribed electrical installation work means work on all or part of any of the following electrical installations if they are ordinarily operated at low voltage or a voltage exceeding low voltage— electrical equipment installed in a hazardous area and electrical equipment associated with the protection of a hazardous area but not installed within the hazardous area;	This is an ongoing issue as the risks of explosion are as real as other low voltage techniques of protection but there is no checking being done.	prescribed electrical installation work means work on all or part of any fixed electrical equipment operated at any voltage installed in a hazardous area and electrical equipment associated with the protection of a hazardous area but not installed within the hazardous area. Then delete 247(h)
11.	67	248(2)(b)		**Inspection of prescribed electrical installation work** A licensed electrical inspector must not inspect prescribed electrical installation work unless— the certificate contains a description of all of the prescribed electrical installation work to be inspected	This creates a "Catch 22" scenario. The LEI cannot confirm the details or extent of the inspection until they have either started or, in some cases, completed the inspection but if they then identify the description on the CES was incomplete the LEI is now in breach of this proposed regulation.	Delete (b)