

## Statement of Reasons – RCBO – June 2020

Submission	Stakeholder feedback provided in response to RIS and draft notice	Energy Safe Victoria (ESV) Response to stakeholder submissions
ABB Australia Pty Ltd	<ol style="list-style-type: none"> <li>1. Support ongoing efforts through requirements of AS/NZS 3000 – Wiring Rules – mandatory use of residual current devices (RCDs) has been increased, also encourage ESV to support removal of clause that allows exemption from RCD verification testing if power not available</li> <li>2. EL004 (AS/NZS 61009) and IEC TC-23 (IEC 61009) – rejected need for amendment</li> <li>3. Concerned that Victoria out of step with requirements of Australian and International Standards as well as other national jurisdictions due to confusion caused, and problems at border towns such as Albury and Wodonga</li> <li>4. Further education about correct installation, testing and use of RCDs following manufacturer/supplier instructions would avert issues</li> <li>5. Retrofitting of RCDs like West Australia (WA) and Queensland (Qld) when house sold or rental would have higher impact compared with risk perceived in regulatory impact statement (RIS)</li> <li>6. Support Option D of RIS – allow prohibition to expire and ESV to increase its education, compliance and enforcement activities</li> </ol>	<ol style="list-style-type: none"> <li>1. ESV supports amendments to the AS/NZS Wiring Rules to remove the current exemption for verification testing requirements of newly-installed electrical systems if no power is available on the site.</li> <li>2. ESV invests significant resources to Standards Committees, however, there may be instances when ESV must act to deliver its responsibilities to ensure the safety of the Victorian community, and this may not be in consensus with a Standards’ Committee, or other States/Territories, at the time.</li> <li>3. States and territory representatives on the standards committee EL4 are supportive of the changes being made to the standard, however they have not progressed as far as ESV</li> <li>4. ESV has committed to further industry and community education, and will continue educating electricians about the importance of correct installation of electrical equipment, and testing of installations.</li> <li>5. The regulatory impact statement (RIS) included analysis of retrofitting RCDs, as for Queensland, as an element to an option and found that the costs would be significant and not address the safety issues associated with the residual current circuit breakers with overcurrent protection (RCBOs) of the identified design vulnerability.</li> <li>6. The RIS considered the option of ESV increasing its education, compliance and enforcement activities as an alternative, and noted that this is less effective for reducing safety risks.</li> </ol>
Australian Industry Group	<ol style="list-style-type: none"> <li>1. Do not support extension of Prohibition and consider that regulatory and industry resources addressing the following issues would be more effective: <ul style="list-style-type: none"> <li>○ ESV to support removal of clause that allows exemption from RCD verification testing if power not available.</li> <li>○ ESV to include risk-based audit focused on recent installations to identify RCBOs installed contrary to manufacturers’ instructions</li> <li>○ Consider retrofitting of RCDs when houses changes ownership as for Qld and WA</li> <li>○ Develop campaign with financial incentives to encourage homeowners to install RCDs</li> <li>○ Develop national campaign to encourage homeowners to ensure</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>1. <ul style="list-style-type: none"> <li>○ ESV supports amendments to the AS/NZS Wiring Rules to remove the current exemption for verification testing requirements of newly-installed electrical systems if no power is available on the site.</li> <li>○ The RIS included analysis of retrofitting RCDs, as for Qld, as an element to an option and found that the costs would be significant and not address the safety issues associated with the RCBOs of the identified design vulnerability.</li> <li>○ ESV encourages installation of RCDs, reflected in ongoing amendment AS/NZS 3000, but installation of new RCDs does not address the safety issues identified regardless of whether financial incentives are made available.</li> </ul> </li> </ol>

	<p>RCDs tested annually and are operational</p> <ol style="list-style-type: none"> <li>2. Made reference to letters dated 17 Feb 2020, 22 May 2019 and 22 Feb 2019 – maintain the position as described in these correspondence</li> <li>3. RIS has not properly factored in cost to suppliers of having to provide two product lines in Australia, meeting Victoria’s unique requirements</li> <li>4. In 2018 revised AS/NZS3000 published that required additional RCDs to be fitted – and that this has improved the safety of new installations since the Camberwell incident.</li> <li>5. Unnecessary costs of extended Prohibition Notice will be imposed on supply chain when many businesses struggling with impacts of COVID-19</li> <li>6. Refer to a Decision RIS suggests that should ESV proceed with Decision RIS than ESV will need to consider: <ul style="list-style-type: none"> <li>o Aligning testing on RCBOs to 5-yearly consistent with general product testing for compliance</li> <li>o Allowing independent and third-party test houses to administer standardised test set by ESV as proof of compliance</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>o ESV has a number of advertising campaigns which specifically target testing of RCDs “Household wiring: Be on the right side of power safety” and “How to test your safety switch”</li> </ul> <ol style="list-style-type: none"> <li>2. ESV has provided specific correspondence to these letters and ESV maintains the position described in the RIS with respect to the nature of the harm.</li> <li>3. The suppliers can chose to supply only the product that complies with the prohibition as that product will comply with the requirements of the rest of the states which means there will be no need to maintain 2 production lines. This seems to be a commercial decision and not required by ESV.</li> <li>4. Noted, ESV believes that the changes in 2018 could potentially increase the risk as more RCBOs are installed and without the prohibition in place the RCBOs with design deficiency would be more prevalent.</li> <li>5. ESV does not believe that there will be additional costs as there are over 800 models listed on the ESV website that retailers can choose from, and that has been in place &gt;24 months. There is no product re-design required with the extension of the prohibition. Further, we have exempted PRCDs from the prohibition.</li> <li>6. ESV notes that Victoria does not require a second decision RIS (that is a Commonwealth process). ESV supports the position to align testing in general, however, in order for this to work EL4 would need to update the AS/NZS 61009 to include the ESV testing requirements so that test laboratories can add this to their testing scope and issue accredited test reports to suppliers. If this was implemented ESV could use this verification prior to listing products on its website.</li> </ol>
Eaton Industries Pty Ltd	<ol style="list-style-type: none"> <li>1. Since ESV’s intervention the Victorian market has insisted on prices remaining the same so that the cost of the RCBO prohibition has been borne by the suppliers, and Eaton experienced a significant cost impact.</li> <li>2. Eaton does not believe there has been a net community benefit as the Prohibition has targeted products rather than the poor installation practices, poor competency, or poor testing and verification/inspection by registered electrical contractors (RECs) and licensed electrical inspectors (LEIs)</li> <li>3. Eaton does not support changes to AS/NZS 61009 or AS/NZS3190, and notes the committees reviewed the issue and found it to be an installation issue rather than product issue</li> </ol>	<ol style="list-style-type: none"> <li>1. The information provided by Eaton indicates the market is competitive, and operating. The cost benefit analysis of an RIS assumes market competition, and directly considered the impacts on consumers ultimately, recognising a prohibition has been in place since July 2018.</li> <li>2. ESV does not accept the proposition and believes the Prohibition has contributed to the safety of the community, and a net benefit. The safety hierarchy of control identifies it is most effective to design out the identified issue out of the product, rather than relying on education and manufacturer’s instructions as mistakes can always be made (human error) and people can cut corners and not undertake testing.</li> <li>3. Noted that Eaton does not support amendments to AS/NZS 61009 and 3190.</li> </ol>

	<p>4. Eaton supports the changes to AS/NZS 3000 to remove the exemption for testing the RCDs with supply is not available.</p> <p>5. Eaton proposes that ESV consider withdrawing the prohibition from the date of application of the amendment of AS/NZS 3000, alternatively should the prohibition remain in place ESV should amend it to exclude RCBOs with an incoming neutral connected by 'pigtail' type arrangement as it is difficult to misunderstand the installation of these devices</p>	<p>4. ESV supports amendments to the AS/NZS Wiring Rules to remove the current exemption for verification testing requirements of newly-installed electrical systems if no power is available on the site.</p> <p>5. For the reasons provided above ESV does not accept removing or changing the scope of the prohibition. ESV accepts that it would be harder for RCBOs with pig tails to be installed incorrectly, however, this would not mitigate the risks of faults in the installation downstream of the RCBO.</p>
Hager Electro Pty Ltd	<p>1. Hager reiterates its previous communications and views already provided to ESV</p> <p>2. Camberwell incident is only known case which involves incorrectly installed RCBO</p> <p>3. Coroner's Office has recently confirmed investigation is not yet completed</p> <p>4. WorkSafe prosecuted the electrical contractor in relation to the Camberwell incident, and the prosecution did not related to the installation of the RCBO</p> <p>5. ESV is trying to overrule the work of Australian standards bodies and ignore the expert advice from these bodies and international standards bodies</p> <p>6. An alternative solution could be to mandate the use of switch neutral RCBOs where all live conductors in the circuit are disconnected. This is cheaper than adapting an existing product to ESV's requirements and switch neutral products are already covered in AS/NZS 61009.</p>	<p>1. Noted, ESV has provided individual feedback to previous correspondence.</p> <p>2. This is not correct as ESV identified 10 more installations in an estate where 30 RCBOs were installed incorrectly.</p> <p>3. Noted. ESV is an independent safety regulator and will contribute to Coronial investigations (as requested) and will respond to recommendations from the Coroner. ESV cannot, however, wait for completion of an investigation as one of its primary functions is ensuring Victorians have safe electrical installations.</p> <p>4. The occupational health and safety legislation places duties on employers, employees, and other persons.</p> <p>5. Yes, ESV relies heavily on standards to ensure an adequate baseline of safety. When standards do not provide an adequate baseline of safety, due to more information becoming available, ESV will use other regulatory instruments to ensure community safety.</p> <p>6. This is an incomplete solution. This type of construction may comply with ESV's requirements and may be used, however ESV does not wish to prescribe a design specific requirements as other designs may be used that don't have the identified deficiency and would to comply with ESV's requirements.</p>
Master Electricians Australia	<p>1. Victorian Coroner's report has not been concluded, and that the Prohibition should be delayed until the Coroner has handed down his findings</p> <p>2. The Standards Australia Technical Committee and IEC Committee of industry experts did not support ESV's position</p> <p>3. ESV's own findings from the fatality identified that the main cause of failure was due to not following manufacturer instructions or poor installation of wiring by electrician</p> <p>4. ESV has not, and does not, recognise Part 1 of AS/NZS 3000 (2018) until 2018 to have a mandatory part of the Standard recognised and</p>	<p>1. Noted. ESV is an independent safety regulator and contributes to Coronial investigations (expresses interest) and will respond to recommendations from the Coroner. ESV cannot, however, wait for completion of an investigation as one of its functions is ensuring Victorians have safe electrical installations.</p> <p>2. Yes, ESV relies heavily on standards to ensure an adequate baseline of safety. When standards do not provide an adequate baseline of safety, due to more information becoming available, ESV will use other regulatory instruments to ensure community safety.</p> <p>3. The safety hierarchy of control identifies it is most effective to design out the</p>

	<p>did not educate industry in Victoria</p> <ol style="list-style-type: none"><li>5. Propose that the Prohibition be extended for 12 months to allow the Coroner's report to be considered</li><li>6. That the Victorian Government review and engage with the electrical industry to implement a free 10 point domestic switch board safety check to encourage consumers to review and upgrade switchboards as required</li><li>7. The Victorian Government introduce measures to address safety risk in established dwellings and retrofit RCBOs on all sub-circuits either through industry engagement with consumers and on transfer of ownership of properties.</li></ol>	<p>identified issue out of the product, rather than relying on education and manufacturer's instructions as mistakes can always be made (human error).</p> <ol style="list-style-type: none"><li>4. ESV recognises Part 1 and Part 2 of the Wiring Rules, and the Electricity Safety (General) Regulations refer to the Wiring Rules.</li><li>5. ESV is not able to extend the Prohibition for a further 12 months.</li><li>6. ESV is generally supportive of having a 10 point switch board inspection check list for the electrical industry to use to identify faults with switch boards and make recommendations to the public about rectifying identified safety issues.</li><li>7. The RIS included analysis of retrofitting RCDs, as for Queensland, as an element to an option and found that the costs would be significant and not address the safety issues associated with the RCBOs of the identified design vulnerability.</li></ol>
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