From: [redacted]
To: Consultation
Subject: Proposed Electricity Safety (Electric Line Clearance) Regulations 2020 - Regulatory Impact Statement and proposed Regulations
Date: Wednesday, 4 March 2020 5:08:37 PM
Attachments: [redacted]

Please note this is the second email on the same subject with a different attachment

RIS submissions
Risk, Regulatory Planning and Policy
Energy Safe Victoria
PO Box 262
Collins St West, Victoria 8007

Thank you for the opportunity to comment on the proposed Electricity Safety (Electric Line Clearance) Regulations and the RIS.

My name is [redacted] of Active Tree Services who are one of the major contractors for tree and vegetation management around powerlines in Australia we have been doing this work for more than 40 years in all states. We also retain strong relationships with tree companies in the US and Europe and are the Platinum Sponsor for the UAAA (Utility Arborists Association Australia) and the AAA the main industry group. We have been working in Victoria for 35 years and currently maintain the Vegetation for Ausnet and Jemena. I was also an Engineer.

The formation of the ELCCC and the process by which the Victorian Government invites stakeholder input into regulations each 5 years is great and is, I believe, the only State Government that invites public and stakeholder comment. I have been watching for a number of years to have the opportunity to comment and it appears that the late formation of the current ELCCC and no clear way to communicate with the ESV on potential changes has curtailed the opportunity for comment before the Draft Regulations were drafted. I had the opportunity to present to the RIS Deloittes team (who were very attentive) and I tried to get information to all members of the ELCCC with some scientific information on how trees behave and when they are likely to cause issues. I am also an expert on working safely around trees and also around powerlines.

There is no doubt that the current regulations have been very effective in reducing fire starts in HBRA areas and outages in both HBRA and LBRA and, as such, I can understand there is little incentive for the regulator to consider changes. I believe that significant financial savings could be made, slightly improved outage or blow in occurrence, quite significant worker safety and much improved urban amenity could be achieved by applying known arboricultural science and general physics to make some modifications to the Draft Code, in particular around clearances.

The History of the Clearances in this code and other state codes is unclear. It may be that the first clearances were developed in South Australia in the 1980s in response to fires there. Enspec prepared a report on national clearances and the possibility of harmonising the Codes. In this process they could not find any references to a scientific basis for the Code. Clearances below

and to some extent to the side can be related to cycle times but clearances above the conductors or the sway clearance space have possibly been introduced in the belief that branches fall out of trees, when there is no wind and rather than arc off their attachment point they fall straight down.

The changes I would recommend are summarised below and *attached is a copy of the 2015 Regulations with the proposed changes marked up,*

Insulated Low Voltage Electric lines LBRA

The purpose of ABC or insulated conductors was that it was tree friendly and allowed minor contact between the conductor and the vegetation*. I would propose that any branch be permitted to stay within the clearance space as long as there is no evidence of wear on the insulated service*. Why a branch that is allowed to remain should be inspected annually is not logical as these branches are the same as any other branch in the tree and the consequence of a failure would be the same. Refer to **Appendix A** which is my submission previously to the ELCCC and contains a code from Ausgrid in NSW which I think is logical. All the new regulation proposes is a reduction in larger branch clearance from 300mm to 150mm.

Uninsulated Low Voltage Electric Wires LBRA

The RIS makes a number of references to *Amenity and Environmental Benefits.* The Draft Regulation proposes to improve this by allowing small branches to grow within 500mm of the clearance space (with additional monitoring) . This would be a minor improvement for a few slow growing species but is generally of very little significance in the way the work will be undertaken. Within the draft there is more emphasis on AS4373 but as commented on by the RIS the regulation overrides this unless an exemption is applied from the ESV which from observation is impractical and any concessions will be lost by the requirements for additional costs such as frequent monitoring.

Most concern is around street trees which are vital to the Urban Landscape, in the last few years as the ESV has taken to enforcing the 1m clearance which has resulted in the removal of large volumes of foliage and damage to the condition and the health of the trees. There is no likelihood of fire in these areas so the only possible reason for insisting on these clearances is public safety or reliability. The RIS produces some $ costs of reliability but if they focussed solely on Low Voltage then scientific evidence on conductivity indicates that other than clashes there is insignificant leakage . In South Australia trees are permitted to grow through the LV provided there is a minimum of 100mm clearance and this includes substantial Trees such as Norfolk Island Pines. In Ausgrid and Endeavour in NSW branches from street trees and private trees in Low Voltage Lines are allowed to grow back and make minor contact between cycles which is generally 2 years. When trees are pruned on cycle then not all foliage needs to be removed from the clearance space if it will not make significant contact. The RIS states on page 4 there is general stakeholder agreement that the Regs are performing well. This is true for HBRA but not at all correct for LBRA, the focus naturally being on fire rather than Amenity. I have suggested changes in wording for Clause 6 to ***allow minor contact between cycles*** (nominally 2 years and not 1 as intimated in the Draft) and I suggest ***clause 7 should be removed***. Clause 7 refers to structural branches inside clearance which is no different than structural branches outside clearance (**Appendix A**)

The suggested environmental benefit could be as suggested by the RIS a $ Billion but if the reliability cost is adjusted for Low Voltage then that cost could be less than $ 10 million giving a

net community benefit of say $990 million.

Clause 28 Uninsulated low and high Voltage in HBRA.

I refer to paragraph 2 A and B. The effect of this clause is that the clearance space is to the full sag and sway and then to the sky, This is referred to as "clear to the sky". This practice is both detrimental to system reliability and worker safety. I refer to the attached Appendix B where [redacted] has demonstrated that all the branches in a tree act to dampen the tree and each other in a wind and removing branches puts additional stress on the remaining branches increasing the likelihood of failure [redacted] has observed that branches start to break at about 70km per hour. A branch 6 m above the conductor will travel about 10m horizontally and a branch say 20m above the conductors 30m. it is in these winds that fire starts are a problem and the trees adjacent to the wires are more likely to provide protection than cause an outage. ***I would propose that clear to the sky be from a space 1m beyond the conductors and only to a height of 4m above the conductor from a horizontal line between insulator, above that at the discretion of an arborist.***

Worker Safety. Much is said about safety but not so much about the workers. Tree work is naturally hazardous and climbing and /or working at significant heights is even more hazardous. Although to my knowledge there has not been a fatality climbing high around powerlines for Distribution Companies in the last 15 years there has been numerous very serious falls and some electric shocks. For a procedure that has a negative benefit for reliability it is difficult to understand why safety is not seen as of primary importance. (**Appendix B)**

A few further comments about the effect or practicality of the Regulations.

Hazard Trees.

All state regulations make statements about identifying Hazard Trees. This is very difficult unless it is glaringly obvious. I would equate it to asking a Medical Doctor to look out his window on comment on the health and expected life span of people as the walk down the street. Much more work on studying trees that fail and the conditions they fail in would help as would a *register at the ESV of every incident in which a tree causes an outage or fire with a scientific examination of the site*. This could be done by local arborists in any region after a basic induction to ensure a consistent process.

Alternative compliance mechanisms

There is a clear mechanism for requesting an alternative compliance mechanism . However to date this has been very rarely attempted. I am aware that it was considered by a group of local councils but did not go to application. The few "exemptions" granted as a general exemption in the Regulations have monitoring requirements that do not make sense arboriculturally or financially. It may be that the ESV could embrace arboriculturally sound requests given that the now have a number of staff that are suitably qualified.

Worker Safety

As mentioned before the tree industry and the electrical or utility tree work is by nature hazardous. It requires specialised insulated equipment and extensive training. To my knowledge

there has only been one fatal powerline incident in the last 10 years which was unfortunately in Victoria, (the outcome of the Worksafe investigation did not attribute this incident to work processes or training or equipment) The most significant hazard of tree work is the additional cables, such as for those for cable TV, that are strung below the electrical conductors rather than the clearances that vegetation is cut to. Possibly some though may be given to removing these cables as most of the NBN is now underground,

Research

As mentioned above ESV could require better reporting in a standard format of all outages and fires and those caused by trees a qualified person to inspect the site.

Active Tree Services would be available anytime to help with a research project, provide data or comment. Thank you for the opportunity.

Yours sincerely,

[redacted]
Special Projects
Active Group
www.activetreeservices.com.au
[redacted]

[redacted]

From: [redacted]
To:
Subject: Appendix A RIS ESV
Date: Sunday, 2 February 2020 4:29:59 PM
Attachments: [redacted]

Low Voltage LBRA

Historically the regulations around Councils clearing foliage from open low voltage conductors was more or less clear on a 2 year cycle and a significant number of trees would have foliage in contact with the conductor or close to it. The 2015 regulations have been gradually tightened to achieve a 1m clearance at all times. This has led to the gutting out of a lot of foliage and ,if there is HV above, removal of any structural limbs such that the community who these trees benefit is sometimes looking at a couple of sticks. My research indicates that there are 4 reasons suggested for these clearances , people climbing trees, leakage or supply losses, branches causing outages, and worker safety.

- Tree Climbing. This has been addressed by the **MAV (see Attached**)and such trees, as few as there are can, be identified and climbable branches removed. I would make the point that current trimming opens up the crotch of the tree whereas less trimming would discourage climbing into that portion of the tree. See MAV paper attached.
- Leakage. I have seen research on this but cannot find specific data. I attach a paper by [redacted] who is considered the lead researcher in the US on Vegetation interruptions. My understanding is that his experiments with 7.6kv, the lowest he tested, showed negligible leakage to earth, the last few slides are interesting. See IEEE PES Jan 07 attached
- Clashes or off supply. Urban LV is generally short span. My experience of clashes is they are caused by a reasonably substantial, flexible young tree or branch to the side of the conductors , hitting the conductor and causing it to stop or swing back into an adjacent conductor. An inspection every few years would ensure this does not happen. NSW has recently adopted a new standard that allows foliage to make contact between trimming cycles **Attached 2806** and South Australia has always allowed branches to grow through the LV with tree trimmers only required to achieve 100mm of clearance **(SA Legislated Clearances).**
- Safety for tree trimmers. This is a reasonable question,.Any work around live powerlines is inherently dangerous as is work at height. We use insulated equipment and intensive training to manage this risk . The work is done at a distance with insulated saws regardless of how close the foliage is. I include the latest standard from Ausgrid with my highlights in yellow and the SA regulation. I don't like the difficulty of accessing trees in the SA model which is different from what is proposed here.

A few other minor LV observations. The requirement for leaving substantial branches inside clearance do not make sense. I read this as a way for the ESV to discourage any request for exemption. These branches are fixed to the tree and are no more likely to fail than any other branch on the network. (similar with HV)

From: [redacted]
To:
Subject: Appendix B HBRA
Date: Sunday, 2 February 2020 4:29:28 PM
Attachments: [redacted]

High and Low Voltage HBRA

The current regulations require clear to the sky to full sway which is 6m between 150 and 200m. in all states except Victoria and South Australia trees are permitted to grow right over the top of the HV. I would propose that we just focus on *the applicable distance* which is 1.5m near pole and 2.25 m midspan.

The first comment I would make is there is no scientific basis for any clear to the sky, a number of efforts have been made to establish where the current diagram , which appears all over Australia, originated. There is some thought that it might have been in SA in the 1970s. The logic could be that branches when they break fall vertically to the ground.

Branches rarely break when there is no wind. If they break in the wind then they will travel some distance horizontally before they get to the conductor height . Branches that break on low wind days will cause an outage but will not start a damaging fire.

I attach a number of papers that make 2 points. Firstly [redacted] has measured the distance a branch will travel at various wind speeds. He has also noted as have many others that branches do not break until wind speeds exceed 50 km/hr or Beaufort . At 4m above the conductor is a 40km wind the branch can travel 6m. the Beaufort scale which is an international observational system for estimating wind speed , ie wind chop on water, up to a hurricane suggests that branches will start breaking off trees at about 60km/hr. See attached Beyond the Clearance Zone. The previous paper by [redacted] makes a similar observation.

Recently much research on how branches on a tree work together to manage the effects of wind has been done in Victoria by [redacted] has been able to show each branch and section of a branch acts to dampen the movements of the whole tree and the individual branch. The corollary is that removing branches will increase the stress on the remaining branches. See attached thesis by [redacted]. I also attach a paper by [redacted] who is a renowned US researcher. (Trees Storm Wind Loads). In my distant past I climbed trees and when the top or remaining crown in a tree removal was cut out the tree moved like you were on a quivering arrow.

I also attach an interesting report the [redacted] from The **Texas Engineering Experiment Station** which confirms a lot of research but also has a very good recommendation on proper collection of vegetation data.

Version No. 001

Electricity Safety (Electric Line Clearance) Regulations 2015

S.R. No. 67/2015

Version as at
28 June 2015

TABLE OF PROVISIONS

Field Code Changed

Field Code Changed

Field Code Changed

Field Code Changed

Field Code Changed

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Version No. 001

Electricity Safety (Electric Line Clearance) Regulations 2015

S.R. No. 67/2015

Version as at
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Part 1—Preliminary

1 Objectives

The objectives of these Regulations are—

(a) to prescribe the Code of Practice for Electric Line Clearance; and

(b) to prescribe—

(i) standards and practices to be adopted and observed in tree cutting or removal in the vicinity of electric lines and the keeping of the whole or any part of a tree clear of electric lines; and

(ii) a requirement that certain responsible persons prepare management procedures to minimise danger of electric lines causing fire or electrocution; and

(iii) other matters for or with respect to the maintenance of electric lines; and

(c) to provide for management plans relating to compliance with the Code; and

(d) to provide for other matters authorised under the **Electricity Safety Act 1998** relating to electric line clearance; and

(e) to make consequential amendments to the Electricity Safety (Bushfire Mitigation) Regulations 2013; and

(f) to make a related amendment to the Electricity Safety (Installations) Regulations 2009.

2 Authorising provisions

These Regulations are made under sections 151, 151A and 157 of the **Electricity Safety Act 1998**.

3 Commencement

These Regulations come into operation on 28 June 2015.

4 Revocation

The Electricity Safety (Electric Line Clearance) Regulations 2010[i] are **revoked**.

5 Definitions

In these Regulations—

approval for an alternative compliance mechanism means an approval granted by Energy Safe Victoria under clause 33 of the Code;

AS 4373 means Australian Standard AS 4373, "Pruning of amenity trees", as published or amended from time to time;

cut, in relation to a tree, includes cutting a part of the tree;

remove, in relation to a tree, means to remove the whole of a tree above ground level;

the Act means the **Electricity Safety Act 1998**;

threatened fauna means fauna that is—

(a) listed as threatened in accordance with section 10 of the **Flora and Fauna Guarantee Act 1988**; or

(b) listed in the Threatened Invertebrate Fauna List with a conservation status in Victoria of "vulnerable", "endangered" or "critically endangered"; or

(c) listed in the Threatened Vertebrate Fauna List with a conservation status in Victoria of "vulnerable", "endangered" or "critically endangered";

Threatened Flora List means the Advisory List of Rare or Threatened Plants in Victoria published by the Department of Environment, Land, Water and Planning as published or amended from time to time;

Threatened Invertebrate Fauna List means the Advisory List of Threatened Invertebrate Fauna in Victoria published by the Department of Environment, Land, Water and Planning as published or amended from time to time;

Threatened Vertebrate Fauna List means the Advisory List of Threatened Vertebrate Fauna in Victoria published by the Department of Environment, Land, Water and Planning as published or amended from time to time;

tree for which a person has clearance responsibilities has the meaning given in regulation 6;

tree of cultural or environmental significance means a tree that is—

(a) included in the Heritage Register within the meaning of the **Heritage Act 1995**; or

(b) included in the Victorian Aboriginal Heritage Register established under section 144 of the **Aboriginal Heritage Act 2006**; or

(c) flora that is—

(i) listed as threatened in accordance with section 10 of the **Flora and Fauna Guarantee Act 1988**; or

(ii) listed in the Threatened Flora List with a conservation status in Victoria of "endangered" or "vulnerable"; or

(d) a habitat of threatened fauna.

6 Meaning of *tree for which a person has clearance responsibilities*

If, under Subdivision 1 of Division 2 of Part 8 of the Act, a person is responsible for keeping the whole or any part of a tree clear of an electric line, that tree is a ***tree for which the person has clearance responsibilities***.

Part 2—Prescribed Code of Practice and related provisions

7 Prescribed Code of Practice

(1) For the purposes of Part 8 of the Act, Schedules 1 and 2 are together prescribed as the Code of Practice for Electric Line Clearance.

(2) In these Regulations, a reference to a numbered clause of the Code is taken to be a reference to the clause of Schedule 1 with that number.

8 Prescribed penalty provisions

For the purposes of section 90 of the Act, clauses 3(1), 7, 13(2), 14(2), 15(2), 16(2), 17(2), 18(2), 19(2), 20(2), 21(2) and 22(2) and (3) of the Code are each a prescribed provision of the Code.

9 Preparation of management plan

(1) This regulation does not apply to a responsible person referred to in section 84A or 84B of the Act.

(2) Before 31 March in each year, a responsible person must ensure that a management plan relating to compliance with the Code for the next financial year is prepared.

Penalty: 20 penalty units.

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(3) A responsible person must ensure that a management plan prepared under subregulation (2) specifies the following—

(a) the name, address and telephone number of the responsible person;

(b) the name, position, address and telephone number of the individual who was

responsible for the preparation of the management plan;

(c) the name, position, address and telephone number of the persons who are responsible for carrying out the management plan;

(d) the telephone number of a person who can be contacted in an emergency that requires clearance of a tree from an electric line that the responsible person is required to keep clear of trees;

(e) the objectives of the management plan;

(f) the land to which the management plan applies (as indicated on a map);

(g) each area that the responsible person knows contains a tree that the responsible person may need to cut or remove to ensure compliance with the Code and that is—

(i) native; or

(ii) listed in a planning scheme to be of ecological, historical or aesthetic significance; or

(iii) a tree of cultural or environmental significance;

(h) the means which the responsible person is required to use to identify a tree of a kind specified in paragraph (g)(i), (ii) or (iii);

(i) the management procedures that the responsible person is required to adopt to ensure compliance with the Code, which must—

(i) include details of the methods to be adopted for managing trees and maintaining a minimum clearance space as required by the Code; and

(ii) specify the method for determining an additional distance that allows for cable sag and sway for the purposes of determining a minimum clearance space in accordance with Division 1 of Part 3 of the Code;

Notes

1 Subregulation (4) provides that the method may provide for different additional distances to be determined for different parts of a span of an electric line.

2 Clause 21(2) of the Code requires a distribution company or an owner or operator of a railway or tramway supply network that is consulted by a Council to assist the Council by determining an additional distance.

(j) the procedures to be adopted if it is not practicable to comply with the requirements of AS 4373 while cutting a tree in accordance with the Code;

Note

Clause 9 of the Code requires a responsible person to cut trees, as far as practicable, in accordance with AS 4373.

(k) a description of each alternative compliance mechanism in respect of which the responsible person has applied, or proposes to apply, for approval under clause 31 of the Code;

(l) the details of each approval for an alternative compliance mechanism that—

(i) the responsible person holds; and

(ii) is in effect;

(m) a description of the measures that must be used to assess the performance of the responsible person under the management plan;

(n) details of the audit processes that must be used to determine the responsible person's compliance with the Code;

(o) the qualifications and experience that the responsible person must require of the persons who are to carry out the inspection, cutting or removal of trees in accordance with the Code;

(p) notification and consultation procedures, including the form of the notice to be given in accordance with Division 3 of Part 2 of the Code;

(q) dispute resolution procedures.

Penalty: 20 penalty units.

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(4) A method for determining an additional distance that allows for cable sag and sway may provide for different additional distances to be determined for different parts of a span of an electric line.

10 Obligations relating to management plan

(1) This regulation applies in relation to the management plan that a responsible person is required, under regulation 9, to prepare for a financial year.

(2) If the responsible person is a major electricity company they must, before 31 March in the year that the financial year commences, submit the management plan to Energy Safe Victoria for approval.

Penalty: 20 penalty units.

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(3) The responsible person must provide a copy of the management plan to Energy Safe Victoria on request within 14 days or such longer period as specified by Energy Safe Victoria.

Penalty: 20 penalty units.

(4) The responsible person must, if requested to do so by Energy Safe Victoria, provide further information or material in respect of the management plan within 14 days or such longer period as specified by Energy Safe Victoria.

Penalty: 20 penalty units.

(5) The responsible person must amend the management plan if instructed to do so by Energy Safe Victoria within 14 days or such longer period as specified by Energy Safe Victoria.

Penalty: 20 penalty units.

(6) The responsible person must not contravene a requirement of the management plan if the management plan is approved by Energy Safe Victoria.

Penalty: 20 penalty units.

(7) The responsible person must ensure that a copy of the management plan is—

(a) published on the responsible person's Internet site; and

(b) available for inspection at the responsible person's principal office in the State during normal business hours.

Penalty: 20 penalty units.

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11 Exemptions

(1) Energy Safe Victoria may exempt a responsible person from any of the requirements of these Regulations subject to any conditions specified by Energy Safe Victoria.

(2) A responsible person who receives an exemption under subregulation (1) must ensure that a copy of the exemption is—

(a) published on the responsible person's Internet site; and

(b) available for inspection at the responsible person's principal office in the State during normal business hours.

Penalty: 20 penalty units.

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12 Offences for which infringement notices may be served

For the purposes of paragraph (b) of the definition of ***prescribed offence*** in section 140A of the Act, regulations 9(2) and (3), 10(2), (3), (4), (5), (6) and (7) and 11(2) are prescribed provisions.

Part 3—Transitional arrangements and expiry

13 Definitions

In this Part—

applicable responsible person means a responsible person who prepared an old management plan;

former Code means the Schedule to the former Regulations;

former Regulations means the Electricity Safety (Electric Line Clearance) Regulations 2010 as in force immediately before their revocation;

old management plan means a management plan relating to the financial year commencing 1 July 2015 that was—

(a) prepared in accordance with regulation 9(2) of the former Regulations; and

(b) in the case of a plan prepared by a major electricity company, approved by Energy Safe Victoria in accordance with regulation 9(4) of the former Regulations;

transition period means the period—

(a) commencing on 28 June 2015; and

(b) ending on 30 June 2016.

14 Transitional arrangements for applicable responsible persons

(1) Subject to regulation 15(3), the following provisions apply to an applicable responsible person during the transition period—

(a) the person—

(i) must comply with the former Code (as modified by subregulation (2)) despite its revocation; and

(ii) is not required to comply with Schedules 1 and 2; and

(b) regulations 7(1) and 8 do not apply in relation to the person; and

(c) the former Code (as modified by subregulation (2)) is prescribed as the Code of Practice for Electric Line Clearance for the person; and

(d) clauses 2(1) and (2), 5(2) and (5), 6(3) and (6), 7 and 9 of the former Code are each, for the purposes of section 90 of the Act, a prescribed provision for the person; and

(e) regulation 10(3), (4), (5), (6) and (7) apply to the person as if a reference to a management plan were a reference to the old management plan prepared by the person.

(2) For the purposes of subregulation (1)(a)(i) and (c), the reference to the former Code is modified by replacing clause 8(1)(a) of that Code with—

"(a) the duties of the responsible person under Schedules 1 and 2 to the Electricity Safety (Electric Line Clearance) Regulations 2015; and".

(3) Despite regulation 9(2), an applicable responsible person is not required to prepare a management plan for the financial year commencing on 1 July 2015.

(4) Regulation 9(3) does not apply to an old management plan.

(5) Despite regulation 10(2), an applicable responsible person is not required to submit a management plan for the financial year commencing on 1 July 2015.

15 Opting out of transitional arrangements

(1) During the transition period, an applicable responsible person may notify Energy Safe Victoria that they intend to prepare a management plan for the financial year commencing on 1 July 2015 in accordance with regulation 9(3).

(2) On receiving a notification under subregulation (1), Energy Safe Victoria may give the applicable responsible person a notice specifying a day by which the person is to submit the management plan.

(3) If the applicable responsible person submits the management plan to Energy Safe Victoria on or before the specified day, regulation 14(1) ceases to apply to the applicable responsible person on the specified day.

16 Expiry

These Regulations expire on 28 June 2020.

Part 4—Consequential and related amendments to other regulations

17 Consequential amendments to the Electricity Safety (Bushfire Mitigation) Regulations 2013

(1) In regulation 10(1)(k) of the Electricity Safety (Bushfire Mitigation) Regulations 2013[ii], for "clause 2(1)" **substitute** "clause 3".

(2) For the note at the foot of regulation 10(1)(k) of the Electricity Safety (Bushfire Mitigation) Regulations 2013 **substitute**—

"**Note**

The Code is prescribed as the Code of Practice for Electric Line Clearance in the Schedules to the Electricity Safety (Electric Line Clearance) Regulations 2015.".

(3) For the note at the foot of regulation 10(1)(l) of the Electricity Safety (Bushfire Mitigation) Regulations 2013 **substitute**—

"**Note**

If a hazard tree is identified, the responsible person may cut or remove the tree under clause 8 of the Code.".

(4) In regulation 10(2) of the Electricity Safety (Bushfire Mitigation) Regulations 2013, for "clause 3" **substitute** "clause 8".

18 Related amendment to the Electricity Safety (Installations) Regulations 2009

After regulation 220 of the Electricity Safety (Installations) Regulations 2009[iii] **insert**—

"**220A Prescribed voltage**

For the purposes of the definition of ***low voltage electric line*** in section 3 of the Act, the prescribed voltage is low voltage.".

Schedule 1—Code of Practice for Electric Line Clearance

Regulation 7

Part 1—Preliminary

1 Definitions

In this Code—

aerial bundled cable means an insulated conductor manufactured in accordance with the specifications set out in any of the following—

(a) AS/NZS 3560.1 as amended or published from time to time;

(b) AS/NZS 3560.2 as amended or published from time to time;

(c) AS/NZS 3599.1 as amended or published from time to time;

(d) AS/NZS 3599.2 as amended or published from time to time;

cable spreader means an insulated rod used to maintain distance between the cables of a low voltage electric line;

covered conductor means an insulated conductor manufactured in accordance with the specifications set out in AS/NZS 3675 as amended or published from time to time;

electric cable means an insulated conductor manufactured in accordance with—

(a) the specifications set out in AS/NZS 1429.1 as amended or published from time to time; or

(b) the specifications set out in AS/NZS 1429.2 as amended or published from time to time;

extra low voltage means a voltage not exceeding—

(a) 50 volts alternating current; or

(b) 120 volts ripple-free direct current;

hazardous bushfire risk area means—

(a) an area that a fire control authority has assigned a fire hazard rating of "high" under section 80 of the Act; or

(b) an area that—

(i) is not an urban area; and

(ii) has not been assigned a fire hazard rating of "low" under section 80 of the Act;

insulated cable means a cable insulated by a medium other than air and includes any of the following—

(a) aerial bundled cable;

(b) covered conductor;

(c) electric cable;

(d) insulating cover;

insulating cover means an insulating pipe or tube that is—

(a) applied to an electric line to provide a protective barrier; and

(b) manufactured in accordance with the specifications set out in any of the following—

(i) AS 1931.1 as amended or published from time to time;

(ii) AS 1931.2 as amended or published from time to time;

(iii) AS 4202 as amended or published from time to time;

(iv) AS/NZS 3100 as amended or published from time to time;

(v) AS/NZS 3121 as amended or published from time to time;

low bushfire risk area means—

(a) an area that a fire control authority has assigned a fire hazard rating of "low" under section 80 of the Act;

(b) an urban area;

low voltage means a voltage exceeding extra low voltage but not exceeding—

(a) 1000 volts alternating current; or

(b) 1500 volts direct current;

minimum clearance space has the meaning set out in clause 2;

nominal voltage means the voltage at which the electric line is designed to operate;

published technical standard means a document giving technical information, guidance or advice published by—

(a) Standards Australia; or

(b) Standards New Zealand; or

(c) the British Standards Institute; or

(d) the International Organisation for Standardisation; or

(e) the International Electrotechnical Commission; or

(f) any similar standards organisation within or outside Australia approved by Energy Safe Victoria; or

(g) Energy Safe Victoria;

railway supply network means the supply network of a railway that is a heavy railway;

sag, in relation to a cable, means the vertical displacement of the cable below the point at which the cable is attached to the supporting structure and includes any additional displacement caused by hot weather or high load current;

span distance means the distance between the points at which a span of an electric line is attached to the two adjacent supporting structures;

span of an electric line means the section of the electric line between two adjacent supporting structures;

suitably qualified arborist means an arborist who has—

(a) the qualification of National Certificate Level IV in Horticulture and Arboriculture, including the "Assess Trees" module, or an equivalent qualification; and

(b) at least 3 years of field experience in assessing trees;

sway, in relation to a cable, means the horizontal displacement of the cable caused by wind;

tramway supply network means the supply network of a railway that is a light railway or tramway;

transmission line means an electric line—

(a) with a nominal voltage of more than 66 000 volts; or

(b) operating at 66 000 volts that is supported on tower structures; or

(c) operating at 66 000 volts that is adjacent to an electric line that has a nominal voltage greater than 66 000 volts;

uninsulated cable means a conductor that is not an insulated cable.

2 Meaning of *minimum clearance space*

(1) Except as otherwise provided by this clause, the ***minimum clearance space*** for a span of an electric line is the minimum clearance space for the span as determined under Part 3.

(2) For the purposes of the application of this Code to a responsible person who holds an approval for an alternative compliance mechanism that is in effect—

(a) if the approval applies to a particular span of an electric line—the ***minimum clearance space*** for that span is the minimum clearance space specified in the approval under clause 33(3)(d)(i); or

(b) if the approval applies to a class of span of electric line—the ***minimum clearance space*** for each span that belongs to that class is the minimum clearance space specified in the approval under clause 33(3)(d)(i).

Part 2—Clearance responsibilities

Division 1—Roles of responsible persons

3 Responsible person must keep minimum clearance space clear of trees

(1) A responsible person must ensure that, at all times, no part of a tree for which the person has clearance responsibilities is within the minimum clearance space for a span of an electric line.

(2) Subclause (1) is subject to clauses 4, 5 and 6.

Note

Clauses 4, 5 and 6 provide that certain responsible persons are not required to ensure that certain branches are clear of the minimum clearance space for spans of certain electric lines.

4 Exception to minimum clearance space for structural branches around insulated low voltage electric lines

(1) This clause applies to a responsible person referred to in section 84, 84C or 84D of the Act.

(2) The responsible person is not required to ensure that a particular branch of a tree for which the person has clearance responsibilities is clear of the minimum clearance space for a span of an electric line if—

(a) the electric line is—

(i) an insulated cable; and

(ii) a low voltage electric line; and

(b) ~~the branch is wider than 130 millimetres at the point at which it enters the minimum clearance space; and~~ l

(c) ~~the branch is more than 300 millimetres from the line; and~~

~~(d) within the last twelve months—~~

~~(i) a suitably qualified arborist has inspected the tree of which the branch is a part; and~~

~~(ii) the arborist has advised the responsible person that the tree of which the branch is a part does not have any visible structural defect that could cause the branch to fail and make contact with the electric line; and~~

~~(iii) the responsible person has completed an assessment of the risks posed by the branch; and~~

~~(iv) the responsible person has implemented measures to effectively mitigate the identified risks.~~

~~(3) A responsible person who leaves a branch within the minimum clearance space for a span of an electric line in accordance with subclause (2) must keep records of the following matters for 5 years—~~

~~(a) each inspection referred to in subclause (2)(d)(i);~~

~~(b) all advice referred to in subclause (2)(d)(ii);~~

~~(c) each assessment referred to in subclause (2)(d)(iii);~~

~~(d) all measures referred to in subclause (2)(d)(iv)~~ .

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Comment [redacted]1]: there is no logic to focussing on branches that are close to the conductor as opposed to any other branch in the vicinity of the conductor

5 Exception to minimum clearance space for small branches around insulated low voltage electric lines

(1) This clause applies to a responsible person referred to in section 84, 84C or 84D of the Act.

(2) The responsible person is not required to ensure that a particular branch of a tree for which the person has clearance responsibilities is clear of the minimum clearance space for a span of an electric line if—

(a) the electric line is—

(i) an insulated cable; and

(ii) a low voltage electric line; and

(b) the branch is not in constant contact ~~is less than 10 millimetres wide at the point at which it enters the minimum clearance space; and~~

~~(c) the branch has been removed from the minimum clearance space within the last twelve months.~~ The span is inspected at a minimum of 2 years and recorded for 3 cycles

~~6 Exception to minimum clearance space for structural branches around uninsulated low voltage electric lines in low bushfire risk areas~~

~~(1) This clause applies to a responsible person referred to in section 84, 84C or 84D of the Act.~~

~~(2) The responsible person is not required to ensure that a particular branch of a tree for which the person has clearance responsibilities is clear of the minimum clearance space for a span of an electric line if—~~

~~(a) the electric line is—~~

~~(i) an uninsulated cable; and~~

6.6.2 **LV ABC communicatio**

For LV ABC distrib cables, blowout of taken into account all of the following

- any contact bet vegetation betv foliage (i.e. lea (i.e. "your thum
- any contact bet sustained (but limbs/branches
- there is low risk horizontally dis 103km/h wind p
- a visual inspect and not damag missing), dama unacceptable c
- Where defectiv referred to the prioritised in ac
- there is no evid vegetation is ca damage, previc tails/rubber ma

Notes:

1. XLPE insu cable", is c and limbs/ thumb") bu
2. As discuss surroundir Bushfire P

Refer to Clause 6. Vegetation Clearar

Comment [redacted] 2]:

Comment [redacted] 3]: This is a copy of the relevant clause in current Ausnet specification Network Standard NW000-S0146

(ii) a low voltage electric line; and

(iii) located in a low bushfire risk area; and

(b) in the case of a branch that comes within the minimum clearance space around the middle two thirds of the span, the span is fitted with —

(i) if the length of the span does not exceed 45 metres — one cable spreader; or

(ii) if the length of the span exceeds 45 metres — 2 cable spreaders; and

Note

A spreader is not required to be fitted to the span if the branch comes within the minimum clearance space around the first or last sixth of the span.

(c) the branch is more than 130 millimetres wide at the point at which it enters the clearance space; and

(d) the branch is no more than 500 millimetres inside the minimum clearance space; and

(e) within the last twelve months —

(i) a suitably qualified arborist has inspected the tree of which the branch is a part; and

(ii) the arborist has advised the responsible person that the tree of which the branch is a part does not have any visible structural defect that could cause the branch to fail and make contact with the electric line; and

Comment [redacted]4]: Again there is no logic to identifying a very close branch as being anymore likely to break in fact branches further away will travel with more speed and are likely to impact harder

~~(iii) the responsible person has completed an assessment of the risks posed by the branch; and~~

~~(iv) the responsible person has implemented measures to effectively mitigate the identified risks.~~

~~(3) A responsible person who leaves a branch within the minimum clearance space for a span of an electric line in accordance with subclause (2) must keep records of the following matters for 5 years—~~

~~(a) each inspection referred to in subclause (2)(e)(i);~~

~~(b) all advice referred to in subclause (2)(e)(ii);~~

~~(c) each assessment referred to in subclause (2)(e)(iii);~~

~~(d) all measures referred to in subclause (2)(e)(iv).~~

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7 Owner or operator of transmission line must manage trees around minimum clearance space

A responsible person who owns or operates a transmission line must—

(a) manage trees below the transmission line to mitigate, as far as practicable, the fire risks associated with the fuel load below the transmission line; and

(b) manage trees adjacent to the transmission line to avoid, as far as practicable, a tree entering the minimum clearance space around that line if the tree falls.

8 Responsible person may cut or remove hazard tree

(1) This clause applies to a responsible person referred to in section 84, 84C or 84D of the Act.

(2) The responsible person may cut or remove a tree for which the person has clearance responsibilities if a suitably qualified arborist has—

(a) assessed the tree having regard to foreseeable local conditions; and

(b) advised the responsible person that the tree, or any part of the tree, is likely to fall onto or otherwise come into contact with an electric line.

Note

Under section 86B of the Act a Council must, in a municipal fire prevention plan, specify procedures and criteria for the identification of trees that are likely to fall onto, or come into contact with, an electric line and procedures for the notification of responsible persons of trees that are hazard trees in relation to electric lines for which they are responsible.

(3) For the purposes of this clause it is irrelevant that the tree is not within, and is not likely to grow into, the minimum clearance space for a span of an electric line.

Division 2—Manner of cutting and removing trees

9 Cutting of tree to comply with Standard

A responsible person cutting a tree under Division 1 must, as far as practicable, cut the tree in accordance with AS 4373 as published or amended from time to time.

Comment [redacted]5]: There is likely to be a significant change to AS 4373 which is about to be reviewed acknowledging that powerline tree trimming cannot be done in accordance with AS4373 and that alternative pruning techniques such as hedging may be more effective

10 Cutting or removal of specified trees must be minimised

(1) A responsible person cutting, under Division 1, a tree of a kind specified in subclause (3) must, as far as is practicable, not cut the tree more than is necessary to either—

(a) ensure compliance with Division 1; or

(b) make an unsafe situation safe.

(2) A responsible person must not remove, under Division 1, a tree of a kind specified in subclause (3) unless—

(a) it is necessary to remove the tree to either—

(i) ensure compliance with Division 1; or

(ii) make an unsafe situation safe; or

(b) a suitably qualified arborist has—

(i) inspected the tree; and

(ii) advised the responsible person that cutting the tree in accordance with subclause (1) would make the tree unhealthy or unviable.

(3) The following kinds of tree are specified for the purposes of subclauses (1) and (2)—

(a) native trees;

(b) trees listed in a planning scheme to be of ecological, historical or aesthetic significance;

(c) trees of cultural or environmental significance.

11 Cutting or removing habitat for threatened fauna

(1) A responsible person must not cut or remove a tree that is the habitat for threatened fauna during the breeding season for the threatened fauna unless—

(a) it is necessary to cut or remove the tree to make an unsafe situation safe; or

(b) it is not practicable to undertake cutting or removal of that tree outside the breeding season.

(2) If it is not practicable to undertake cutting or removal of that tree outside the breeding season, the responsible person must translocate the fauna before undertaking the cutting or removal if it is practicable to do so.

12 Restriction on timing of cutting or removal if notification is required

(1) This clause applies to a responsible person who—

(a) gives notice under clause 15(2) about the intended cutting or removal of a tree; or

(b) publishes a notice under clause 16(2) about the intended cutting or removal of a tree.

(2) The responsible person must not commence cutting or removal of the tree on a day that is earlier than the first day that is specified, or before the first day of the period that is specified, in the notice under clause 15(6) or 16(4)(b) (as the case requires).

13 Restriction on urgent cutting of trees

(1) This clause applies to a responsible person referred to in sections 84, 84C or 84D of the Act who is required to comply with clause 18(2) in relation to cutting that is required—

(a) as a result of encroachment or growth of trees that was not anticipated in the management plan; or

(b) during the fire danger period declared under the **Country Fire Authority Act 1958**.

Note

A responsible person is required to comply with clause 18(2) in relation to the cutting of a tree if the responsible person is referred to in section 84, 84C or 84D of the Act and the cutting is urgently required for a reason set out in clause 18(1). In these circumstances, clauses 15(2), 16(2) and 17(2) do not require the giving or

publication of a written notice, or the undertaking of consultation, before the cutting.

(2) The responsible person must not cut a tree further than 1 metre from the minimum clearance space for a span of an electric line.

14 Restriction on urgent removal of trees

(1) This clause applies to a responsible person referred to in sections 84, 84C or 84D of the Act who is required to comply with clause 18(2) in relation to a tree.

Note

A responsible person is required to comply with clause 18(2) in relation to a tree if the responsible person is referred to in section 84, 84C or 84D of the Act and the cutting or removal of the tree is urgently required for a reason set out in clause 18(1). In these circumstances, clauses 15(2), 16(2) and 17(2) do not require the giving or publication of a written notice, or the undertaking of consultation, before the cutting or removal.

(2) The responsible person must not remove the tree unless—

(a) the tree has fallen or become damaged and is to be removed to keep the minimum clearance space for a span of an electric line free of trees; or

(b) a suitably qualified arborist has—

(i) assessed the tree having regard to foreseeable local conditions; and

(ii) advised the responsible person that the tree is likely to imminently fall onto or otherwise come into contact with an electric line.

Division 3—Notification, consultation and dispute resolution

15 Responsible person must provide notification before cutting or removing certain trees

(1) This clause applies to a responsible person who is required by clause 3 or 7, or who intends under clause 8, to cut or remove a tree that is—

(a) on private property that the responsible person neither owns nor occupies; or

(b) on public land; or

(c) a tree of cultural or environmental significance; or

(d) listed in a planning scheme to be of ecological, historical or aesthetic significance.

(2) The responsible person must give a written notice in accordance with this clause before cutting or removing the tree unless—

(a) the responsible person is a responsible person referred to in section 84, 84C or 84D of the Act; and

(b) the cutting or removal is urgently required for a reason set out in clause 18(1).

(3) A written notice given under subclause (2) must be given to—

(a) if the tree is within the boundary of a private property—an owner or occupier of the property; or

(b) if the tree is on land that is managed by a Council that is not the responsible person—that Council; or

(c) if the tree is on land that is contiguous to private property and the use of that property may be affected during the cutting or removal—an owner or occupier of that property.

(4) A written notice given under subclause (2) must include the following information—

(a) the contact details of the responsible person, including the contact details for all enquiries regarding vegetation and the intended cutting or removal;

(b) details of the intended cutting or removal;

(c) advice that the responsible person has procedures for resolving disputes and details on how to obtain access to the procedures.

(5) A written notice given under subclause (2) must include the following additional information—

(a) if the notice is given to an owner or occupier of private property in accordance with subclause (3)(a)—

(i) details of the consultation procedure that the responsible person will follow; and

(ii) details of whether the tree to be cut or removed is—

(A) a tree of cultural or environmental significance; or

(B) listed in a planning scheme to be of ecological, historical or aesthetic significance; and

(iii) if the tree is intended to be cut, a diagram that shows—

(A) the tree and where the electric line is in relation to the tree; and

(B) where the tree will be cut;

(b) if the notice is given to a Council in accordance with subclause (3)(b)—details of whether the tree to be cut or removed is—

(i) on public land; or

(ii) a tree of cultural or environmental significance; or

(iii) listed in a planning scheme to be of ecological, historical or aesthetic significance;

(c) if the notice is given to an owner or occupier of private property in accordance with subclause (3)(c)—details of the impact that the intended cutting or removal may have on the affected person's use of their land during the cutting or removal.

(6) A written notice given under subclause (2) must specify one or more days on which, or a period during which, the responsible person intends that the intended cutting or removal will commence.

Note

Clause 12 provides that if a responsible person gives written notice under this clause, the person must not commence cutting or removal of the tree other than on a day or a period specified under subclause (6).

(7) The responsible person must not specify, under subclause (6), a day that is, or a period the first day of which is—

(a) earlier than 14 days from the date of the notice; and

(b) later than 60 days from the date of the notice.

16 Responsible person must publish notice before cutting or removing certain trees

(1) This clause applies to a responsible person who is required by clause 3 or 7 to cut or remove a tree that is on public land that is not privately owned.

(2) The responsible person must publish a written notice in accordance with this clause before cutting or removing the tree unless—

(a) the responsible person is a responsible person referred to in section 84, 84C or 84D of the Act; and

(b) the cutting or removal is urgently required for a reason set out in clause 18(1).

(3) A written notice published under subclause (2) must be published in a newspaper circulating generally in the locality of the land in which the tree is to be cut or removed.

(4) A written notice published under subclause (2) must—

(a) describe the cutting or removal that the responsible person intends to undertake; and

(b) specify one or more days on which, or a period during which, the responsible person intends that the intended cutting or removal will commence.

Note

Clause 12 provides that if a responsible person publishes a notice under this clause, the person must not cut or remove the tree other than on a day or period specified under subclause (4)(b).

(5) The responsible person must not specify, under subclause (4)(b), a day that is, or a period the first day of which is—

(a) earlier than 14 days from the date of the notice; and

(b) later than 60 days from the date of the notice.

17 Responsible person must consult with occupier or owner of private property before cutting or removing certain trees

(1) This clause applies to a responsible person who is required by clause 3 or 7 or who intends under clause 8 to cut or remove a tree that is within the boundary of a private property which the responsible person neither occupies nor owns.

(2) The responsible person must consult as required by subclause (3) before cutting or removing the tree unless—

(a) the responsible person is a responsible person referred to in section 84, 84C or 84D of the Act; and

(b) the cutting or removal is urgently required for a reason set out in clause 18(1).

(3) For the purposes of subclause (2), the responsible person must consult—

(a) if the tree is to be cut within the boundary of the private property—an occupier of the property; or

(b) if the tree is to be removed—an owner of the property.

18 Notification and record keeping requirements for urgent cutting or removal

(1) This clause applies if a responsible person referred to in section 84, 84C or 84D of the Act undertakes any cutting or removal that is urgently required—

(a) as a result of encroachment or growth of trees that was not anticipated in the management plan; or

(b) as a result of a tree falling or becoming damaged so that it is required to be cut or removed to maintain the minimum clearance space; or

(c) because a suitably qualified arborist has—

(i) assessed the tree having regard to foreseeable local conditions; and

(ii) advised the responsible person that the tree, or any part of the tree, is likely to imminently fall onto or otherwise come into contact with an electric line; or

(d) during the fire danger period declared under the **Country Fire Authority Act 1958**.

Notes

1 Clause 13 restricts the urgent cutting referred to in subclause (1)(a) and (d).

2 Clause 14 restricts the urgent removal referred to in subclause (1).

(2) The responsible person must, as soon as practicable after completing the cutting or removal, give written notice of that cutting or removal to—

(a) if the tree that was cut or removed was within the boundary of a private property—an owner or occupier of the property; or

(b) if the tree that was cut or removed was on land that is managed by a Council and not by the responsible person—the Council.

(3) A written notice given under subclause (2) must specify—

(a) where and when the cutting or removal was undertaken; and

(b) why the cutting or removal was required; and

(c) the date of the last inspection of the span of the electric line in relation to which the cutting or removal was required before it was identified that the urgent cutting or removal was required.

(4) The responsible person must keep a record of a written notice given under subclause (2) for at least 5 years.

19 Dispute resolution

(1) This clause does not apply to a responsible person referred to in section 84A or 84B of the Act.

(2) The responsible person must establish a procedure to be followed for the independent resolution of disputes relating to electric line clearance.

(3) The responsible person must—

(a) ensure that a copy of the procedure is available for inspection at the responsible person's principal office in the State during normal business hours; and

(b) publish that procedure on the responsible person's Internet site.

Division 4—Additional duties of responsible persons

20 Duty relating to the safety of cutting or removal of trees close to an electric line

(1) If a Council has concerns about the safety of cutting or removal of a tree for which the Council has clearance responsibilities, the Council may consult—

(a) if the Council's concerns relate to a span of an electric line that is part of a railway supply network or tramway supply

network—the owner or operator of that supply network; or

(b) in any other case—the distribution company in whose distribution area the electric line is located.

(2) An owner, operator or distribution company that is consulted by a Council under subclause (1) must provide advice to the Council on—

(a) safe limits of approach to electric lines for cutting or removing the tree; and

(b) safe methods for cutting or removing the tree.

21 Duty relating to assisting to determine the allowance for cable sag and sway

(1) If a Council considers that, for the purpose of determining a minimum clearance space in accordance with Division 1 of Part 3, the Council requires assistance to determine an additional distance that allows for cable sag and sway, the Council may consult—

(a) if the Council requires assistance in relation to a span of an electric line that is part of a railway supply network or tramway supply network—the owner or operator of that supply network; or

(b) in any other case—the distribution company in whose distribution area the electric line is located.

(2) An owner, operator or distribution company that is consulted by a Council under subclause (1) must assist the Council by determining the additional distance.

(3) The Council must keep a record of the additional distance referred to in subclause (2) for at least 5 years.

(4) An owner, operator or distribution company may determine different additional distances for different parts of a span of an electric line.

22 Duties relating to management procedures to minimise danger

(1) A distribution company must give advice about the following matters to each occupier of land above which there is a private electric line that is within the distribution company's distribution area—

(a) the duties of the responsible person under this Code;

(b) the dangers of cutting and removing trees;

(c) the precautions that should be taken to safely maintain the line.

(2) A distribution company must give advice under subclause (1) at least once every calendar year.

(3) A distribution company must, on the request of a person who has clearance responsibilities for a tree within the distribution company's distribution area, advise that person—

(a) how to identify places within that area where the cutting or removal of trees will be required; and

(b) where to obtain advice and information on methods for maintaining clearance between electric lines and trees.

Part 3—Minimum clearance spaces

Division 1—Standard minimum clearance spaces

23 Additional distance that allows for cable sag and sway

In this Division, a reference to an ***additional distance that allows for cable sag and sway*** that is to be used in determining a minimum clearance space is a reference to—

(a) if the minimum clearance space is to be determined in relation to a Council that sought assistance in determining the additional distance under clause 21—the additional distance specified in the record kept by the Council under clause 21(3); or

(b) otherwise—the distance determined in accordance with the method specified, under regulation 9(3)(i)(ii), in the management plan of the responsible person in relation to whom the minimum clearance space is to be determined.

Note

Different parts of a span of an electric line may have different additional distances—see regulation 9(4) and clause 21(4).

24 Insulated electric lines in all areas

~~(1) This clause applies to an electric line that is an insulated cable.~~

~~(2) The minimum clearance space for a span of the electric line is the space extending away from the line in all directions perpendicular to its axis for the applicable distance.~~

~~(3) The ***applicable distance*** for the first and last sixths of the span is 300 millimetres.~~

~~(4) The *applicable distance* for the middle two thirds of the span is—~~

~~(a) if the span distance is less than or equal to 40 metres—300 millimetres; or~~

~~(b) if the span distance is greater than 40 metres and less than or equal to 100 metres—the distance calculated in accordance with the following expression—~~

~~+ (( ))~~

~~where—~~

~~*SD* is the span distance; or~~

~~(c) if the span distance is greater than 100 metres—900 millimetres.~~

~~Notes~~

~~1 The applicable distance for the middle two thirds of the span is represented as a graph in Graph 1 of Schedule 2.~~

~~2The minimum clearance space for a span of an electric line to which this clause applies is partially illustrated in Figures 1, 2 and 3 of Schedule 2.~~

25 Uninsulated low voltage electric line in a low bushfire risk area

(1) This clause applies to an electric line that is—

(a) an uninsulated cable; and

(b) a low voltage electric line; and

(c) located in a low bushfire risk area.

(2) The minimum clearance space on each trimming cycle for a span of the electric line is the space extending away from the line in all directions perpendicular to its axis for—

(a) the applicable distance; and

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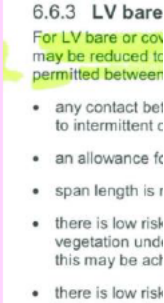
Comment [redacted]6]: To be replaced by the earlier wording in clause on insulated cables

Comment [redacted]7]: Possibly with a comment that is when clearing is required it should be to a minimum of 300mm

Comment [redacted]8]: In other states minor contact between cycles is allowed as an example see Ausgrid below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Comment [redacted]9]:

(b) if the span distance is greater than 100 metres, an additional distance that allows for cable sag and sway.

(3) The ***applicable distance*** for the first and last sixths of the span is ~~1000~~ 500 millimetres.

(4) The ***applicable distance*** for the middle two thirds of the span is—

(a) if the span distance is less than or equal to 45 metres—500~~1000~~ millimetres; or

(b) if the span distance is greater than 45 metres and less than or equal to 100 metres—the distance calculated in accordance with the following expression—

$$+ \left(\left(\quad \right) \quad \left(\quad \right)\right)$$

where—

SD is the span distance; or

(c) if the span distance is greater than 100 metres—2500 millimetres.

Notes

1 The applicable distance for the middle two thirds of the span is represented as a graph in Graph 2 of Schedule 2.

2 The minimum clearance space for a span of an electric line to which this clause applies is partially illustrated in Figures 1 and 4 of Schedule 2.

26 Uninsulated high voltage electric line (other than a 66 000 volt electrical line) in a low bushfire risk area

(1) This clause applies to an electric line that—

(a) is an uninsulated cable; and

(b) is a high voltage electric line; and

(c) does not have a nominal voltage of 66 000 volts; and

(d) is located in a low bushfire risk area.

(2) The minimum clearance space for a span of the electric line is the space extending away from the line in all directions perpendicular to its axis for—

(a) the applicable distance; and

(b) if the span distance is greater than 100 metres, an additional distance that allows for cable sag and sway.

(3) The ***applicable distance*** for the first and last sixths of the span is 1500 millimetres.

(4) The ***applicable distance*** for the middle two thirds of the span is—

(a) if the span distance is less than or equal to 45 metres—1500 millimetres; or

(b) if the span distance is greater than 45 metres and less than or equal to 100 metres—the distance calculated in accordance with the following expression—

$$+ \left(\left(\quad \right) \quad \left(\quad \right) \right)$$

where—

SD is the span distance; or

(c) if the span distance is greater than 100 metres—2500 millimetres.

Notes

1 The applicable distance for the middle two thirds of the span is represented as a graph in Graph 3 of Schedule 2.

2 The minimum clearance space for a span of an electric line to which this clause applies is partially illustrated in Figures 1 and 3 of Schedule 2.

27 Uninsulated 66 000 volt electrical line in a low bushfire risk area

(1) This clause applies to an electric line that—

(a) is an uninsulated cable; and

(b) is a high voltage electric line; and

(c) has a nominal voltage of 66 000 volts; and

(d) is located in a low bushfire risk area.

(2) The minimum clearance space for a span of the electric line is—

(a) the space extending away from the line in all directions perpendicular to its axis for—

(i) the applicable distance; and

(ii) if the span distance is greater than 100 metres, an additional distance that allows for cable sag and sway; and

(b) the space above the space described in paragraph (a).

(3) The ***applicable distance*** for the first and last sixths of the span is 2250 millimetres.

(4) The ***applicable distance*** for the middle two thirds of the span is—

(a) if the span distance is less than or equal to 45 metres—2250 millimetres; or

(b) if the span distance is greater than 45 metres and less than or equal to 100 metres—the distance calculated in accordance with the following expression—

$$+ \left(\left(\quad \right) \quad \left(\quad \right) \right)$$

where—

SD is the span distance; or

(c) if the span distance is greater than 100 metres—3500 millimetres.

Notes

1 The applicable distance for the middle two thirds of the span is represented as a graph in Graph 4 of Schedule 2.

2 The minimum clearance space for a span of an electric line to which this clause applies is partially illustrated in Figures 1 and 5 of Schedule 2.

28 Uninsulated low voltage and high voltage electric lines (other than a 66 000 volt electrical line) in a hazardous bushfire risk area

(1) This clause applies to an electric line that—

(a) is an uninsulated cable; and

(b) does not have a nominal voltage of 66 000 volts; and

(c) is located in a hazardous bushfire risk area.

(2) The minimum clearance space for a span of the electric line is—

(a) the space extending away from the line in all directions perpendicular to its axis for the applicable distance and an additional distance that allows for cable sag and sway; and

(b) the space above the space described in paragraph to 1500mm with no allowance for sway (a).

(3) The ***applicable distance*** for the first and last sixths of the span is 1500 millimetres.

(4) The ***applicable distance*** for the middle two thirds of the span is—

(a) if the span distance is less than or equal to 45 metres—1500 millimetres; or

(b) if the span distance is greater than 45 metres and less than or equal to 500 metres—the distance calculated in accordance with the following expression—

+ (( ) ( ))

where—

Comment [redacted]10]: The space above should only go out to the applicable distance as any further clearing is counter productive to the structure of the tree and will increase the likelihood of a branch failure in that tree, means that workers are exposed to working at much greater heights and thus compromises worker safety, absolutely does not conform with AS4373

SD is the span distance; or

(c) if the span distance is greater than 500 metres—2250 millimetres.

Notes

1 The applicable distance for the middle two thirds of the span is represented as a graph in Graph 5 of Schedule 2.

2 The minimum clearance space for a span of an electric line to which this clause applies is partially illustrated in Figures 1 and 5 of Schedule 2.

29 Uninsulated 66 000 volt electric lines in a hazardous bushfire risk area

(1) This clause applies to an electric line that—

(a) is an uninsulated cable; and

(b) has a nominal voltage of 66 000 volts; and

(c) is located in a hazardous bushfire risk area.

(2) The minimum clearance space for a span of the electric line is—

(a) the space extending away from the line in all directions perpendicular to its axis for the applicable distance and an additional distance that allows for cable sag and sway; and

(b) the space above the space described in paragraph (a).

(3) The ***applicable distance*** for the first and last sixths of the span is 2250 millimetres.

(4) The ***applicable distance*** for the middle two thirds of the span is—

(a) if the span distance is less than or equal to 45 metres—2250 millimetres; or

(b) if the span distance is greater than 45 metres and less than or equal to 350 metres—the distance calculated in accordance with the following expression—

$$+ \left(\left(\quad \right) \quad \left(\quad \right) \right)$$

where—

SD is the span distance; or

(c) if the span distance is greater than 350 metres—3000 millimetres.

Notes

1 The applicable distance for the middle two thirds of the span is represented as a graph in Graph 6 of Schedule 2.

2 The minimum clearance space for a span of an electric line to which this clause applies is partially illustrated in Figures 1 and 5 of Schedule 2.

30 Transmission lines

(1) The minimum clearance space for a span of a transmission line is—

(a) the space that is bound by the horizontal limits determined in accordance with subclause (2) and that, between those limits, extends downward from the level of the line for the applicable vertical distance; and

(b) the space above that space.

(2) The horizontal limits of the minimum clearance space are reached by extending horizontally from the transmission line to the left and right of the line for the applicable horizontal distance.

(3) For a transmission line of a nominal voltage that is specified in an item in Column 1 of the following table—

(a) the ***applicable horizontal distance*** is the sum of—

(i) the distance specified in Column 2 for that item; and

(ii) an additional distance that allows for cable sag and sway; and

(b) the ***applicable vertical distance*** is the sum of—

(i) the distance specified in Column 3 for that item; and

(ii) an additional distance that allows for cable sag and sway.

Column 1 *Nominal voltage*	*Column 2* *Applicable horizontal distance (without allowance for sag and sway)*	*Column 3* *Applicable vertical distance (without allowance for sag and sway)*
66 kV	3000 mm	3000 mm
More than 66 kV, but less than 220 kV	4600 mm	3700 mm
220 kV	4600 mm	3700 mm
275 kV	5000 mm	4200 mm
330 kV	5500 mm	4700 mm
500 kV	6400 mm	6400 mm

Note

This minimum clearance space is partially illustrated in Figures 6 and 7 of Schedule 2.

Division 2—Alternative compliance mechanisms

31 Application for approval of alternative compliance mechanism

(1) This clause applies to a responsible person referred to in sections 84, 84C or 84D of the Act.

(2) A responsible person may apply to Energy Safe Victoria for approval to use an alternative compliance mechanism in respect of a span of an electric line or a class of spans.

(3) The application must—

(a) include details of—

(i) the alternative compliance mechanism; and

(ii) the procedures to be adopted for commissioning, installing, operating, maintaining and decommissioning the alternative compliance mechanism; and

(b) identify the published technical standards that will be complied with when commissioning, installing, operating, maintaining and decommissioning the alternative compliance mechanism; and

(c) either—

(i) if the application is made in respect of a span of an electric line—specify the location of the span; or

(ii) if the application is made in respect of a class of span of electric line—describe the class; and

(d) specify the minimum clearance space that the applicant proposes is to be applied in relation to the span, or class of spans, in respect of which the application is made; and

(e) include a copy of formal safety assessment prepared under clause 32.

(4) The application must include a copy of the written agreement of—

(a) if the application is made in respect of a span of an electric line and the responsible person does not own the span—the owner or the operator of the span; or

(b) if the application is made in respect of a class of spans—the owner or the operator of each span that—

(i) belongs to that class; and

(ii) is not owned by the applicant.

(5) The responsible person must, if requested to do so by Energy Safe Victoria, provide further information or material about the application.

32 Formal safety assessment of alternative compliance mechanism

A formal safety assessment must include—

(a) a description of the methodology used and investigations undertaken for the formal safety assessment; and

(b) an identification of hazards associated with the use of the alternative compliance mechanism having the potential to cause a serious electrical incident; and

(c) a systematic assessment of the risks (including the likelihood and consequences of a serious electrical incident) associated with—

(i) commissioning, installing, operating, maintaining and decommissioning the alternative compliance mechanism; and

(ii) the safety of the span or class of spans to which the alternative compliance mechanism will apply; and

(d) a description of technical and other measures undertaken or to be undertaken to reduce those risks as far as practicable.

33 Approval of alternative compliance mechanism

(1) Energy Safe Victoria may approve an application under clause 31 if satisfied that—

(a) the application complies with clause 31; and

(b) the details included in the application under clause 31(3)(a) are adequate; and

(c) the application provides an adequate assessment of the risks referred to in clause 32(c); and

(d) the application provides an appropriate set of measures to mitigate those risks.

(2) The approval may be subject to any conditions that Energy Safe Victoria thinks fit, including conditions that—

(a) the responsible person's communications with Energy Safe Victoria regarding the approval must be made in a specified manner; or

(b) the responsible person must perform specified actions in relation to the alternative compliance mechanism; or

(c) the responsible person must monitor the use of the alternative compliance mechanism in a specified manner; or

(d) the responsible person must report to Energy Safe Victoria on the use of the alternative compliance mechanism in a specified manner.

(3) The approval must—

(a) be in writing; and

(b) include any conditions to which the approval is subject; and

(c) identify the span of an electric line, or describe the class of span of electric line, to which the approval applies; and

(d) specify—

(i) the minimum clearance space that is to apply under the approval; and

(ii) the period of time for which the approval has effect; and

(iii) any acts or omissions that will constitute major noncompliance and result in the revocation of the approval.

(4) Energy Safe Victoria must give a copy of the approval to the responsible person who made the application.

(5) If Energy Safe Victoria refuses an application for approval of an alternative compliance mechanism, Energy Safe Victoria must—

(a) give written notice of the decision to the responsible person who made the application; and

(b) set out reasons for the decision.

34 Amendment of approval

(1) Energy Safe Victoria may amend an approval for an alternative compliance mechanism.

(2) Without limiting subclause (1), an amendment under that subclause may—

(a) amend or revoke a condition attached to the approval; or

(b) impose a further condition on the approval.

(3) On making an amendment under subclause (1), Energy Safe Victoria must give the responsible person a written notice specifying—

(a) the amendment; and

(b) the date from which the amendment has effect.

35 Suspension or revocation of approval

(1) Energy Safe Victoria may suspend or revoke an approval for an alternative compliance mechanism if Energy Safe Victoria considers that—

(a) there has been a failure to comply with a condition of the approval and the failure is so serious that it cannot be dealt with by increased monitoring requirements under the arrangement; or

(b) the responsible person has committed an act or omission that constitutes a major noncompliance with the approval that was specified in the approval under clause 33(3)(d)(iii).

(2) If Energy Safe Victoria suspends or revokes an approval under subclause (1), Energy Safe Victoria must give the responsible person a written notice setting out—

(a) that the approval has been suspended or revoked (as the case requires); and

(b) the reasons for the suspension or revocation; and

(c) if the approval is suspended, the period of suspension; and

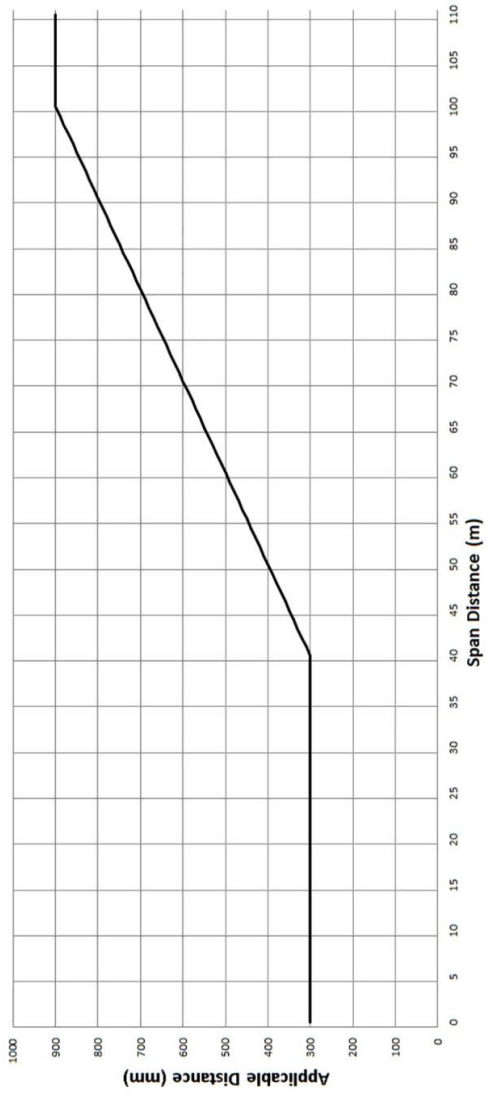
(d) if the approval is revoked, the day from which the revocation has effect.

(3) Energy Safe Victoria may at any time revoke the suspension of an approval by giving written notice of the revocation to the responsible person.

Schedule 2—Applicable distance for middle two thirds of a span of an electric line

GRAPH 1—INSULATED ELECTRIC LINES IN ALL AREAS

Clauses 3 and 24



251658240

Graph 1 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 24 applies is calculated is as follows:

For $0 < SD \leq 40$, $AD = 300$ mm

For $40 < SD \leq 100$, $AD = 300 + ((SD - 40) \times 10)$

For 100 < SD, AD = 900 mm

Where:

SD = Span Distance

AD = Applicable Distance

Notes to Graph 1

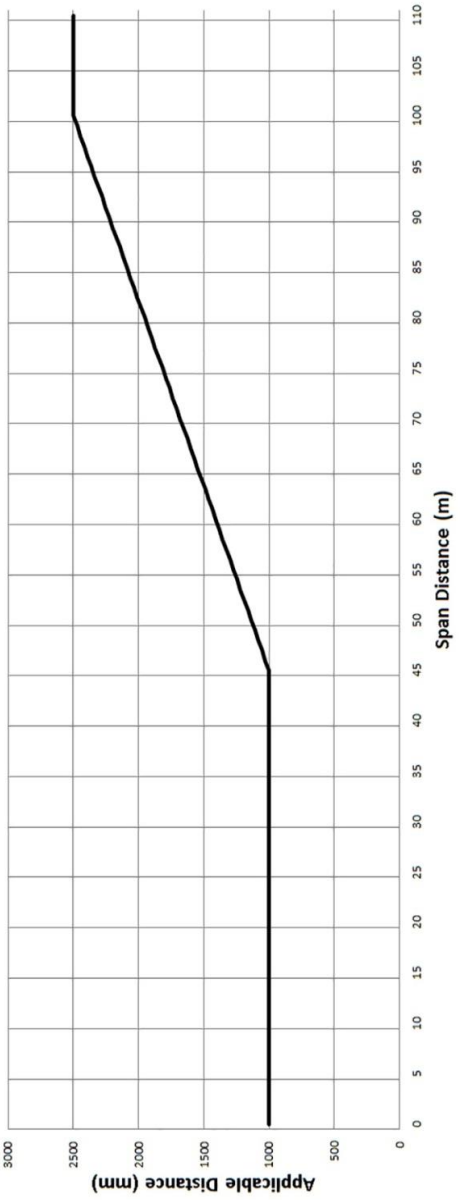
(1) The applicable distance includes allowances for sag and sway of the cable.

(2) The minimum clearance space for a span of an electric line to which this Graph and clause 24 apply is partially illustrated in Figures 1, 2 and 3.

(3) The applicable distance for the first and last sixths of a span of an electric line to which clause 24 applies is 300 millimetres.

GRAPH 2—UNINSULATED LOW VOLTAGE ELECTRIC LINE IN LOW BUSHFIRE RISK AREA

Clauses 3 and 25



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Graph 2 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 25 applies is calculated is as follows:

For $0 < SD \leq 45$, AD = 1000 mm

For $45 < SD \leq 100$, AD = $1000 + ((SD - 45) \times (1500 \div 55))$

For $100 < SD$, AD = 2500 mm

Where:

SD = Span Distance

AD = Applicable Distance

Notes to Graph 2

(1) The applicable distance includes allowances for sag and sway of the cable for a span up to and including 100 metres in length.

(2) For a span longer than 100 metres, the applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance (see clause 25(2)(b)).

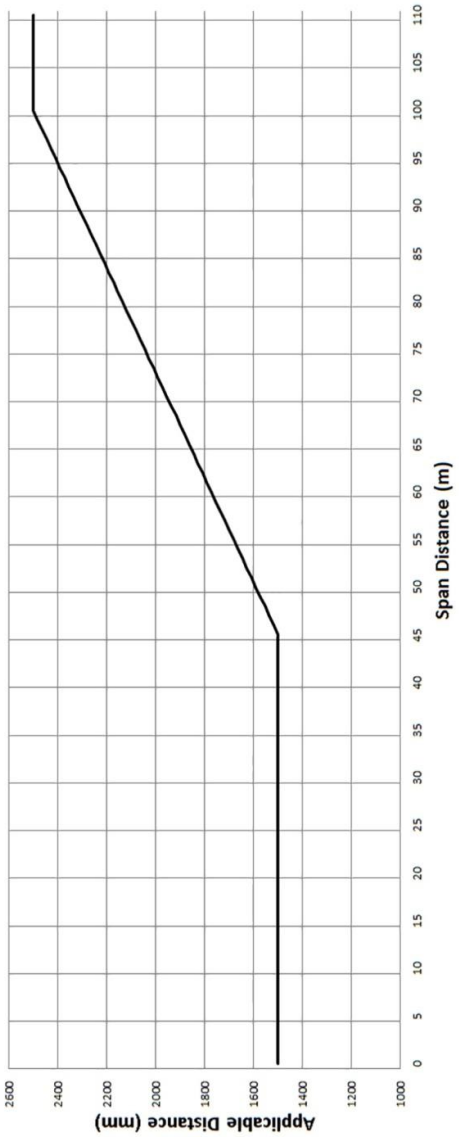
(3) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance that allows for sag and sway of the cable (see clause 21(2)).

(4) The minimum clearance space for a span of an electric line to which this Graph and clause 25 apply is partially illustrated in Figures 1 and 4.

(5) The applicable distance for the first and last sixths of a span of an electric line to which clause 25 applies is 1000 millimetres.

GRAPH 3—UNINSULATED HIGH VOLTAGE ELECTRIC LINE (OTHER THAN A 66 000 VOLT ELECTRIC LINE) IN LOW BUSHFIRE RISK AREA

Clauses 3 and 26



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Graph 3 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 26 applies is calculated is as follows:

For $0 < SD \leq 45$, AD = 1500 mm

For $45 < SD \leq 100$, AD = 1500 + ((SD - 45) × (1000 ÷ 55))

For $100 < SD$, AD = 2500 mm

Where:

SD = Span Distance

AD = Applicable Distance

Notes to Graph 3

(1) The applicable distance includes allowances for sag and sway of the cable for a span up to and including 100 metres in length.

(2) For a span longer than 100 metres, the applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance (see clause 26(2)(b)).

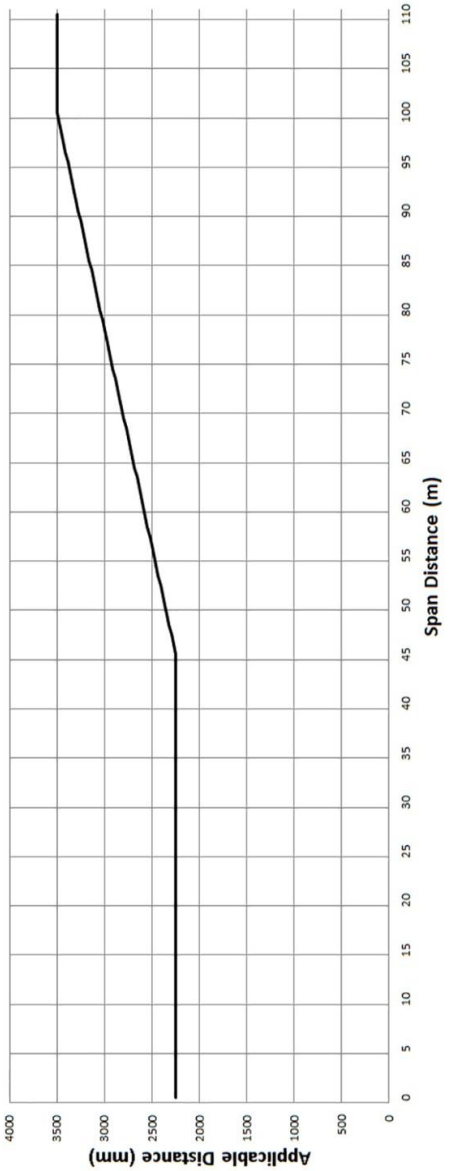
(3) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance (see clause 21(2)).

(4) The minimum clearance space for a span of an electric line to which this Graph and clause 26 apply is partially illustrated in Figures 1 and 3.

(5) The applicable distance for the first and last sixths of a span of an electric line to which clause 26 applies is 1500 millimetres.

GRAPH 4—UNINSULATED 66 000 VOLT ELECTRIC LINE IN LOW BUSHFIRE RISK AREA

Clauses 3 and 27



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Graph 4 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 27 applies is calculated is as follows:

For $0 < SD \leq 45$, AD = 2250 mm

For $45 < SD \leq 100$, $AD = 2250 + ((SD - 45) \times (1250 \div 55))$

For $100 < SD$, AD = 3500 mm

Where:

SD = Span Distance

AD = Applicable Distance

Notes to Graph 4

(1) The applicable distance includes allowances for sag and sway of the cable for a span up to and including 100 metres in length.

(2) For a span longer than 100 metres, the applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance (see clause 27(2)(a)(ii)).

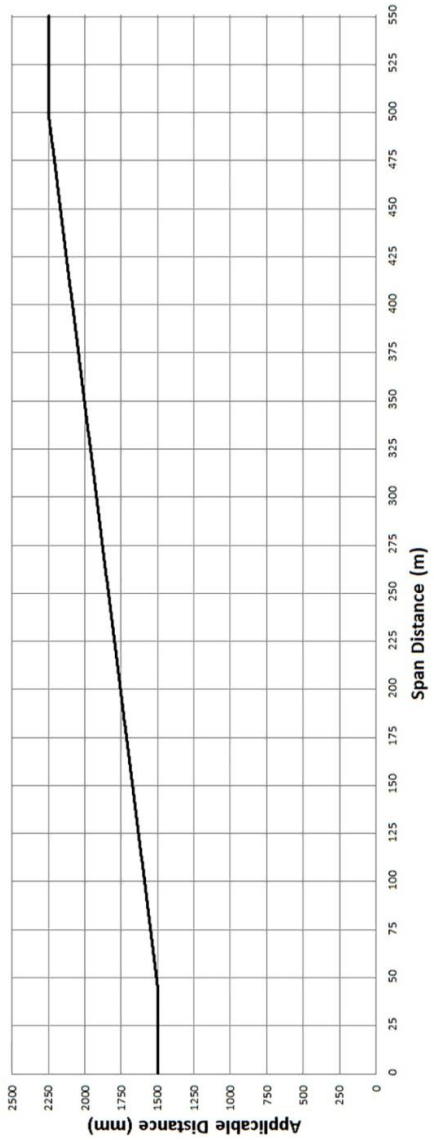
(3) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance (see clause 21(2)).

(4) The minimum clearance space for a span of an electric line to which this Graph and clause 27 apply is partially illustrated in Figures 1 and 5.

(5) The applicable distance for the first and last sixths of a span of an electric line to which clause 27 applies is 2250 millimetres.

GRAPH 5—UNINSULATED LOW VOLTAGE AND HIGH VOLTAGE ELECTRIC LINE (OTHER THAN A 66 000 VOLT ELECTRIC LINE) IN HAZARDOUS BUSHFIRE RISK AREA

Clauses 3 and 28



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Graph 5 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 28 applies is calculated is as follows:

For $0 < SD \leq 45$, AD = 1500 mm

For $45 < SD \leq 500$, AD = 1500 +((SD - 45) × (500 ÷ 303))

For $500 < SD$, AD = 2250 mm

Where:

SD = Span Distance

AD = Applicable Distance

Notes to Graph 5

(1) The applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance (see clause 28(2)(a)).

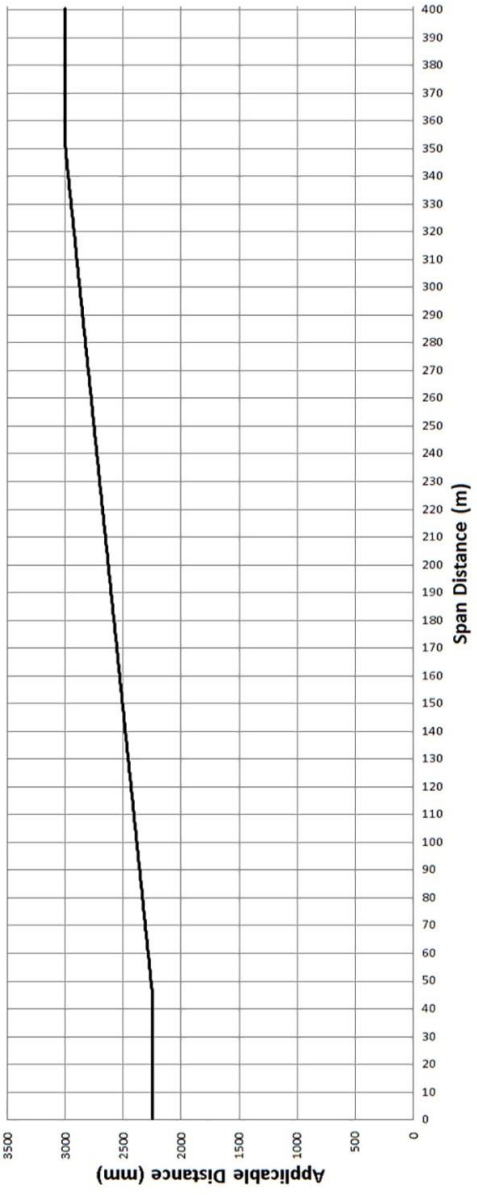
(2) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance (see clause 21(2)).

(3) The minimum clearance space for a span of an electric line to which this Graph and clause 28 apply is partially illustrated in Figures 1 and 5.

(4) The applicable distance for the first and last sixths of a span of an electric line to which clause 28 applies is 1500 millimetres.

GRAPH 6—UNINSULATED 66 000 VOLT ELECTRIC LINE IN HAZARDOUS BUSHFIRE RISK AREA

Clauses 3 and 29



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Graph 6 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 29 applies is calculated is as follows:

For $0 < SD \leq 45$, AD = 2250 mm

For $45 < SD \leq 350$, AD = 2250 + ((SD - 45) × (750 ÷ 305))

For $350 < SD$, AD = 3000 mm

Where:

SD = Span Distance

AD = Applicable Distance

Notes to Graph 6

(1) The applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance (see clause 29(2)(a)).

(2) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance (see clause 21(2)).

(3) The minimum clearance space for a span of an electric line to which this Graph and clause 29 apply is partially illustrated in Figures 1 and 5.

(4) The applicable distance for the first and last sixths of a span of an electric line to which clause 29 applies is 2250 millimetres.

FIGURE 1—PLAN VIEW OF ELECTRIC LINES IN ALL AREAS

Clauses 24, 25, 26, 27, 28 and 29, Graphs 1, 2, 3, 4, 5 and 6

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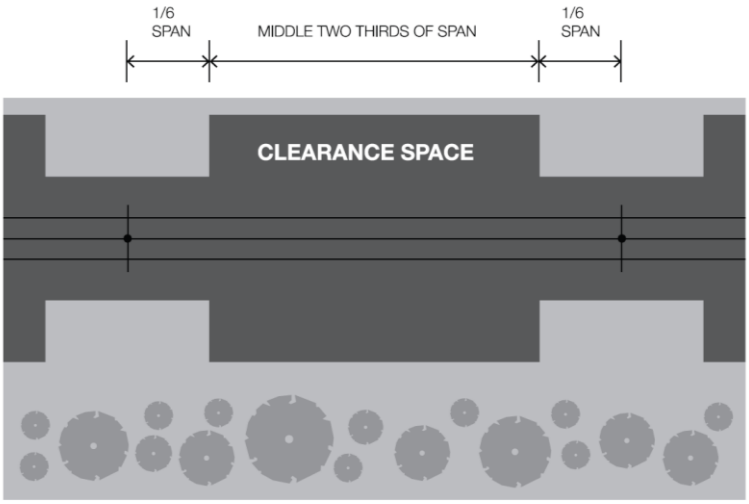

FIGURE 2—INSULATED ELECTRIC LINES IN ALL AREAS

Clause 24, Graph 1

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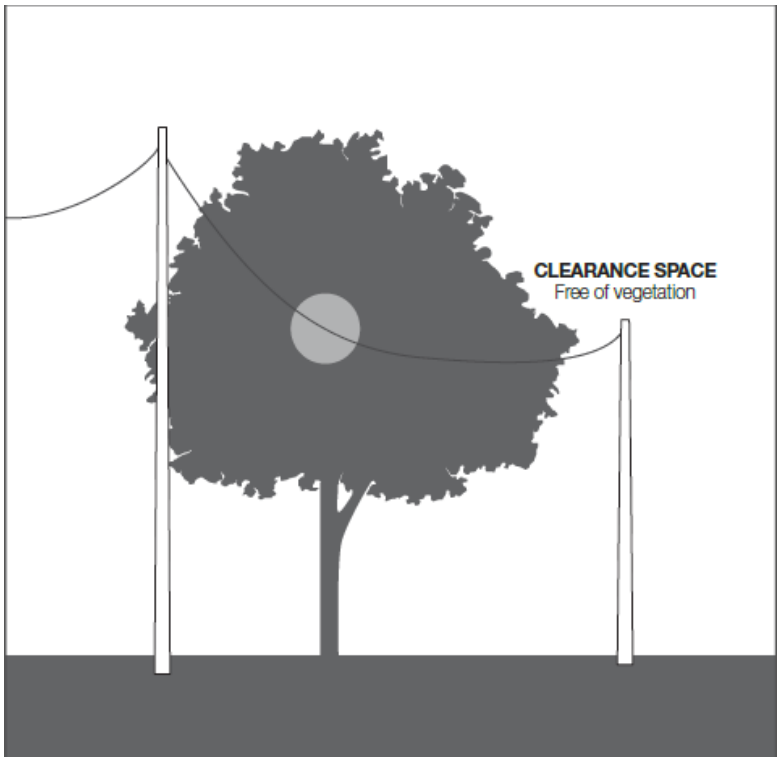

NOT TO SCALE

FIGURE 3—INSULATED ELECTRIC LINES IN ALL AREAS AND UNINSULATED HIGH VOLTAGE ELECTRIC LINES (OTHER THAN 66 000 VOLT ELECTRIC LINES) IN LOW BUSHFIRE RISK AREAS

Clauses 24 and 26, Graphs 1 and 3

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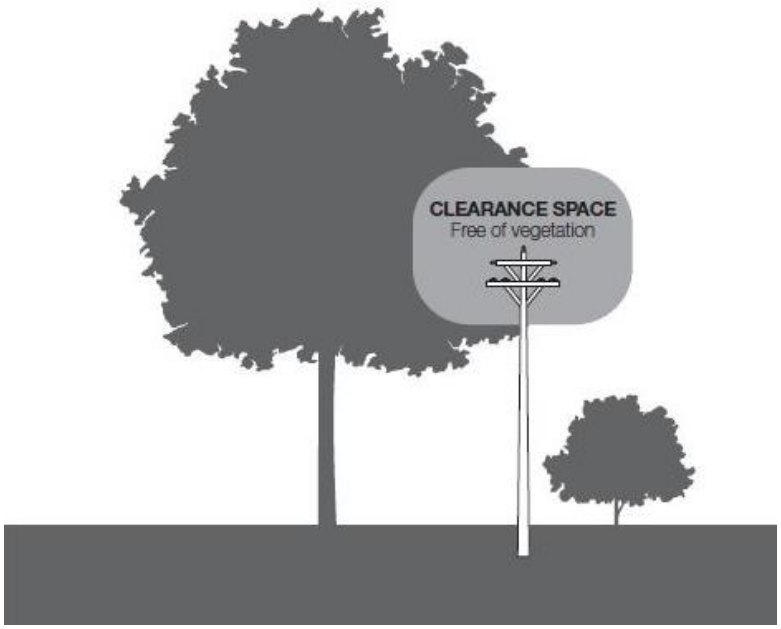

NOT TO SCALE

FIGURE 4—UNINSULATED LOW VOLTAGE ELECTRIC LINE IN A LOW BUSHFIRE RISK AREA

Clause 25, Graph 2

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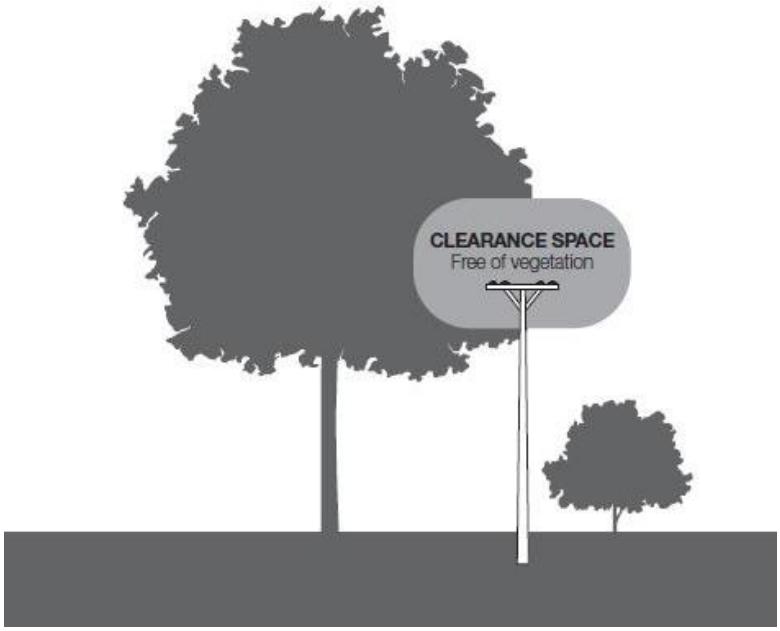

NOT TO SCALE

FIGURE 5—UNINSULATED 66 000 VOLT ELECTRIC LINE IN A LOW BUSHFIRE RISK AREA AND UNINSULATED ELECTRIC LINE IN A HAZARDOUS BUSHFIRE RISK AREA

Clauses 27, 28 and 29, Graphs 4, 5 and 6

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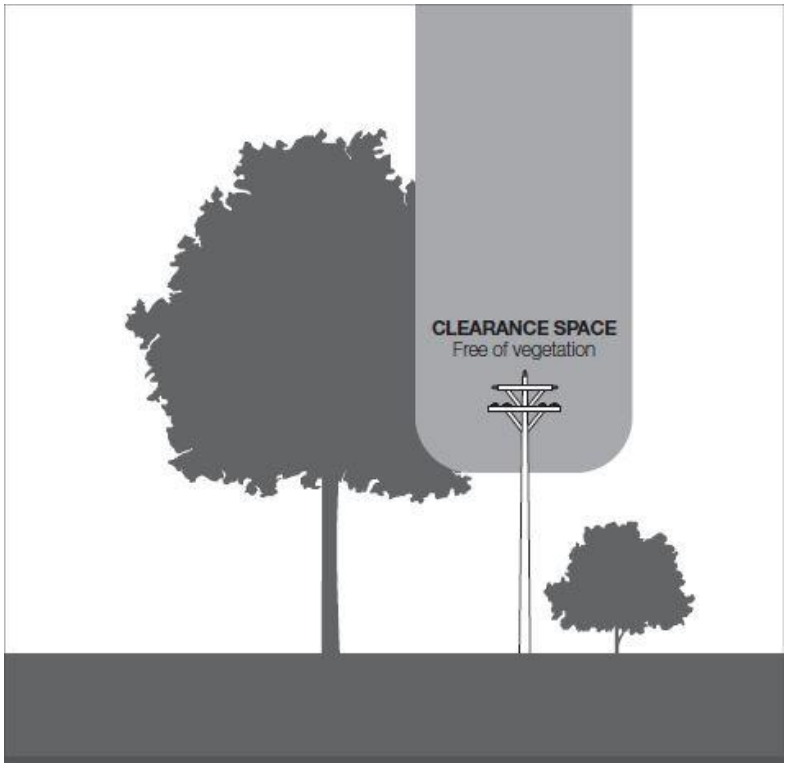

NOT TO SCALE

FIGURE 6—END VIEW OF THE TRANSMISSION LINE

Clause 30

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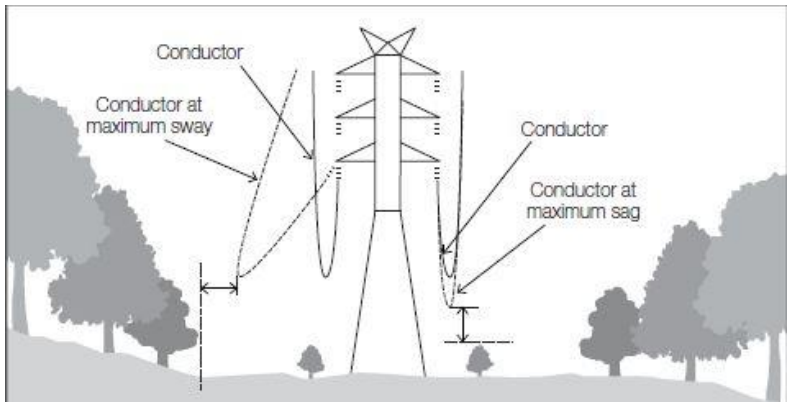

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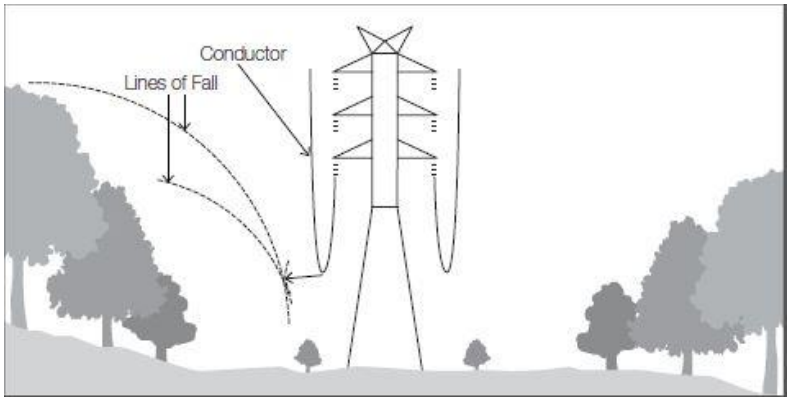
FIGURE 7—TREES ADJACENT TO THE TRANSMISSION LINE

Clause 30

251658240



NOT TO SCALE

Endnotes

1 General information

See www.legislation.vic.gov.au for Victorian Bills, Acts and current authorised versions of legislation and up-to-date legislative information.

The Electricity Safety (Electric Line Clearance) Regulations 2015, S.R. No. 67/2015 were made on 23 June 2015 by the Governor in Council under sections 151, 151A and 157 of the **Electricity Safety Act 1998**, No. 25/1998 and came into operation on 28 June 2015: regulation 3.

The Electricity Safety (Electric Line Clearance) Regulations 2015 will expire on 28 June 2020: see regulation 16.

2 Table of Amendments

There are no amendments made to the Electricity Safety (Electric Line Clearance) Regulations 2015 by statutory rules, subordinate instruments and Acts.

3 Amendments Not in Operation

Not updated for this publication.

4 Explanatory details

[i] Reg. 4: S.R. No. 47/2010.

[ii] Reg. 17(1): S.R. No. 62/2013.

[iii] Reg. 18: S.R. No. 164/2009 as amended by S.R. Nos 21/2010, 35/2011 and 36/2014.

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Penalty Units

These Regulations provide for penalties by reference to penalty units within the meaning of section 110 of the **Sentencing Act 1991**. The amount of the penalty is to be calculated, in accordance with section 7 of the **Monetary Units Act 2004**, by multiplying the number of penalty units applicable by the value of a penalty unit.

The value of a penalty unit for the financial year commencing 1 July 2014 is $147.61.

The amount of the calculated penalty may be rounded to the nearest dollar.

The value of a penalty unit for future financial years is to be fixed by the Treasurer under section 5 of the **Monetary Units Act 2004**. The value of a penalty unit for a financial year must be published in the Government Gazette and a Victorian newspaper before 1 June in the preceding financial year.

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Table of Applied, Adopted or Incorporated Matter

The following table of applied, adopted or incorporated matter is included in accordance with the requirements of regulation 5 of the Subordinate Legislation Regulations 2014.

Statutory rule provision	**Title of applied, adopted or incorporated document**	**Matter in applied, adopted or incorporated document**
Regulation 5 Definition of ***AS 4373***	AS 4373, "Pruning of amenity trees" published 14 March 2007 by Standards Australia	The whole

Statutory rule provision	**Title of applied, adopted or incorporated document**	**Matter in applied, adopted or incorporated document**
Regulation 5 Definition of ***Threatened Flora List***	Advisory List of Rare or Threatened Plants in Victoria, published in 2005 by the Department of Environment and Primary Industries	The whole
Regulation 5 Definition of ***Threatened Invertebrate Fauna List***	Advisory List of Threatened Invertebrate Fauna in Victoria, published in 2009 by the Department of Environment and Primary Industries	The whole
Regulation 5 Definition of ***Threatened Vertebrate Fauna List***	Advisory List of Threatened Vertebrate Fauna in Victoria, published in 2013 by the Department of Environment and Primary Industries	The whole
Schedule 1, clause 1 Definition of ***aerial bundled cable***	AS/NZS 3560.1, "Electric cables—Cross-linked polyethylene insulated—Aerial bundled—For working voltages up to and including 0·6/1 (1·2) kV—Part 1: Aluminium conductors" published 7 April 2000 by Standards Australia and Standards New Zealand	The whole
Schedule 1, clause 1 Definition of ***aerial bundled cable***	AS/NZS 3560.2, "Electric cables—Cross-linked polyethylene insulated—Aerial bundled—For working voltages up to and including 0·6/1 (1·2) kV—Part 2: Copper conductors" published 17 July 2013 by Standards Australia and Standards New Zealand	The whole

Statutory rule provision	**Title of applied, adopted or incorporated document**	**Matter in applied, adopted or incorporated document**
Schedule 1, clause 1 Definition of ***aerial bundled cable***	AS/NZS 3599.1, "Electric cables—Aerial bundled—Polymeric insulated—Voltages 6·35/11 (12) kV and 12·7/22 (24) kV—Part 1: Metallic screened" published 11 September 2003 by Standards Australia and Standards New Zealand	The whole
Schedule 1, clause 1 Definition of ***aerial bundled cable***	AS/NZS 3599.2, "Electric cables—Aerial bundled—Polymeric insulated—Voltages 6·35/11 (12) kV and 12.7/22 (24) kV—Part 2: Non-metallic screened" published 5 June 1999 by Standards Australia and Standards New Zealand	The whole
Schedule 1, clause 1 Definition of ***covered conductor***	AS/NZS 3675, "Conductors—Covered overhead—For working voltages 6·35/11 (12) kV up to and including 19/33 (36) kV" published 30 May 2002 by Standards Australia and Standards New Zealand	The whole
Schedule 1, clause 1 Definition of ***electric cable***	AS/NZS 1429.1, "Electric cables—Polymeric insulated—Part 1: For working voltages 1·9/3·3 (3·6) kV up to and including 19/33 (36) kV" published 21 April 2006 by Standards Australia and Standards New Zealand	The whole

Statutory rule provision	**Title of applied, adopted or incorporated document**	**Matter in applied, adopted or incorporated document**
Schedule 1, clause 1 Definition of ***electric cable***	AS/NZS 1429.2, "Electric cables—Polymeric insulated—Part 2: For working voltages above 19/33 (36) kV up to and including 87/150 (170) kV" published 17 September 2009 by Standards Australia and Standards New Zealand	The whole
Schedule 1, clause 1 Definition of ***insulating cover***	AS 1931.1, "High-voltage test techniques—Part 1: General definitions and test requirements" published 5 March 1996 by Standards Australia	The whole
Schedule 1, clause 1 Definition of ***insulating cover***	AS 1931.2, "High-voltage test techniques—Part 2: Measuring systems" published 5 March 1996 by Standards Australia	The whole
Schedule 1, clause 1 Definition of ***insulating cover***	AS 4202, "Insulating covers for electrical purposes" published 11 July 1994 by Standards Australia	The whole
Schedule 1, clause 1 Definition of ***insulating cover***	AS/NZS 3100, "Approval and test specification—General requirements for electrical equipment" published 30 October 2009 by Standards Australia and Standards New Zealand	The whole

Statutory rule provision	**Title of applied, adopted or incorporated document**	**Matter in applied, adopted or incorporated document**
Schedule 1, clause 1 Definition of ***insulating cover***	AS/NZS 3121, "Approval and test specification—Insulating mouldings" published 22 November 2002 by Standards Australia and Standards New Zealand	The whole