Electric Line Clearance Consultative Committee Recommendations for the *Electricity Safety (Electric Line Clearance) Regulations 2020*

May 2024

(updated June 2024)

Executive Summary

The Electricity Safety (Electric Line Clearance) Regulations 2020 (**Regulations**) came into operation on 27 June 2020. The objectives of the Regulations are to prescribe the Code of Practice for Electric Line Clearance (**Code**) as well as a number of 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.

The Regulations and Code will expire on 27 June 2025. Work is now underway for the Governor in Council to make the new Electricity Safety (Electric Line Clearance) Regulations and the Code for Electric Line Clearance for the 2025 – 2030 period (**New Regulations and New Code**).

The Electricity Safety Act 1998 provides for the establishment of an Electric Line Clearance Consultative Committee (**Committee**) to provide advice to Energy Safe Victoria regarding the preparation and maintenance of the Code.

Committee members are appointed by the Minister and include individuals representing the interests of private landowners, electricity distribution and transmission companies, local government, departmental and Country Fire Authority nominees, and persons with expertise in land management, conservation, planning and environment.

The Committee has deliberated on the current Regulations and Code with a view to identifying amendments which should be adopted for the New Regulations and New Code.

This document sets out the Committee's recommendations of proposed amendments to the Regulations and the Code.

The Committee unanimously agree that the current Regulations should be amended to strike a better balance between safety, amenity and environmental considerations. The Committee strongly suggests that the current Regulations are resulting in unnecessary vegetation loss without evidence of a corresponding safety benefit.

In summary, the amendments relate to the following:

- reducing the minimum clearance space for uninsulated low voltage electric lines in LBRA;
- changes to some exception clauses in order to improve the ease with which the exception can be relied upon;
- limit the "clear to sky" requirements for uninsulated electric lines in HBRA and 66kV electric lines in LBRA;
- revising the requirement to manage trees adjacent to the transmission line; and
- amending the content requirements of management plans and submission frequency for municipal councils.

The Committee strongly urges Energy Safe Victoria to adopt its recommendations.

Importance of our urban forest and trees

There is a large and growing body of evidence about the benefits of the urban forest and trees more broadly. The Victorian Government-endorsed Living Melbourne: Our Metropolitan Urban Forest 1 strategy, developed by The Nature Conservancy and Resilient Melbourne, provides an excellent overview of the benefits a healthy urban forest can provide, including:

- shade and cooling during extreme heat events;
- physical health benefits by encouraging physical activity, thus lowering obesity levels, and reducing the incidence of some diseases (eg chronic heart disease);
- mental health and well-being benefits by reducing stress and improving living conditions. People prefer vegetated urban areas to non-vegetated urban landscapes;
- social cohesion by providing a welcoming shared space, increasing community and neighbourhood connection, and reducing levels of fear and crime;
- biodiversity and native species conservation through benefits for species richness, and habitat for native and threatened species; and
- ecosystem services and improved air quality. Urban vegetation, and especially trees, capture, and filter air pollutants, including ground-level ozone, sulphur dioxide, nitrogen oxides and particulate matter.

By allowing more canopy to be retained in urban areas, these Regulations would be contributing to state government-endorsed objectives to increase tree canopy identified in Plan Melbourne 2017–2050, specifically Outcome 6: Melbourne is a sustainable and resilient city, Action 91: Whole of government approach to cooling and greening Melbourne.

The Committee acknowledges that responsible management of vegetation around electric lines is critical to reducing the risk of fire, power supply outages and electrocution. It goes without saying that safety for workers around electric lines and the community is a paramount consideration.

Based on science, incident data, as well as practical experience, the Committee is proposing amendments that will reduce the amount of vegetation to be removed in a number of settings. If accepted, these amendments will provide significant community benefit without materially increasing the risk to the public or to those who work around powerlines. It is important to note that none of the amendments proposed alter the existing requirements for safe approach distances for line clearance workers.

1 The Nature Conservancy and Resilient Melbourne (2019) Living Melbourne: Our Metropolitan Urban Forest Technical Report.

Government to take account of climate change

The Committee also notes that the *Climate Change Act 2017* (Vic) requires the Government to endeavour to ensure that any decision made by the Government and any policy, program or process developed or implemented by the Government appropriately takes account of climate change if it is relevant by having regard to the policy objectives and guiding principles (see clause 20). In addition, this Act introduces an updated set of guiding principles to embed climate change in government decision making.

The Committees' recommendations reflects climate change considerations.

1. Minimum clearance space for uninsulated low voltage electric line in a low bushfire risk area (clause 25)

Recommendation

The minimum clearance space below and beside uninsulated low voltage (LV) electric lines in Low Bushfire Risk Areas (LBRA) should be reduced to 300 mm for span lengths up to 45 metres, with consequential amendments to specified exceptions clauses

Reduction of minimum clearance space

The Committee's position is based on a desire to promote better environmental, aesthetic and sustainability outcomes for our communities with no material adverse impact to safety. A reduction in tree canopy loss carries multiple benefits for our communities that impact on their personal health, the economic health of their communities and our resilience to the impacts of climate change.

Scientific principles and incident data in relation to the proximity of vegetation to low voltage electric lines demonstrate there is no material increase in risk to network safety and reliability with implementing a 300 mm minimum clearance space for span lengths up to 45 metres. 300 mm was proposed for consistency with other areas in the Code, and to protect structural limbs from trees of significance in inner-urban areas. The Australian Standard for Overhead Line Design (AS/NZS 7000:2016) states that the maximum flashover distance for uninsulated LV electric lines is 10 mm, so the proposal of 300 mm clearance provides for a safety factor of 30.

In 2010, South Australia reduced their uninsulated LV minimum clearance space from 100 mm (in place since circa 1986) to 'contact allowable' applied against certain criteria, failing which a minimum clearance space of 100 mm is required.

We have also given due consideration to the safety of the line clearance workers which is prescribed by the current Electrical Safety Rules for Vegetation Management Work Near Overhead Powerlines by Non-Electrical Workers (municipal workers) and the VESI Vegetation Management Guideline (VESI workers). VESI workers have a "no contact" personal safe approach distance requirement whereas municipal workers can approach uninsulated LV electric lines to a limit of 300 mm. A reduction of the minimum clearance space to 300 mm will have no impact to the existing safe approach distance requirements for line clearance workers.

Vegetation clearances for both categories of worker are "No clearance required", so there will be no material impact to the current level of worker safety. It is important to note that responsible persons are unlikely to clear vegetation only to 300 mm, as an additional space for regrowth allowance will still need to be added.

Clause 6 – Exception to minimum clearance space for small branches growing under uninsulated low voltage electric lines in low bushfire risk areas

If the above recommendation regarding clause 25 is accepted, the exception in clause 6 is no longer required and can be removed. If the above recommendation is not accepted, clause 6 will need to be retained and we have suggested amendments to this exception to improve the ease with which the exception can be relied upon (see section 2 below).

Clause 7 – Exception to minimum clearance space for structural branches around uninsulated low voltage electric lines in low bushfire risk areas

If the above recommendation regarding clause 25 is accepted, the exception in clause 7 is no longer required and can be removed. If the above recommendation is not accepted, clause 7 will need to be retained and we have suggested amendments to this exception to improve the ease with which the exception can be relied upon (see section 3 below).

New exception

We recommend that a new exception be inserted for the following reasons:

- there are many examples of structural branches within 150-300 mm of uninsulated low voltage electric lines that have no known history of creating issues or interference and should therefore be allowed to remain;

- allowing structural branches 150 mm or greater is proposed because this distance is greater than the 10 mm maximum flashover distance for uninsulated LV electric lines referred to above. This proposal provides 15 times the required distance to avoid the risk of a flashover;

- larger structural branches have reduced flexibility and movement compared to smaller branches. Therefore the risk of occasional contact between the branches and lines is low.

We recognise that at this proximity any changes with the branch's condition, size, or position need to be identified early before any damage to the branch or lines occurs. Therefore, the proposed inspection frequency will ensure any changes over time are identified and can be responded to before issues occur. Feedback from councils is that this would greatly assist with:

- retaining the high amenity values of mature avenues that are important to their communities;

- reduce the need to undertake pruning that has a high visual and physiological impact on trees; and

- contribute to achieving canopy cover targets.

This proposal relates to branches that are already existing and does not allow for new structural branches to become established within this distance. This change would not

materially increase any risk to worker safety, as these existing branches are currently being managed.

See our suggested drafting in Appendix 1.

2. Exception to minimum clearance space for small branches growing under uninsulated low voltage electric lines in low bushfire risk areas (clause 6)

Recommendation

Remove the requirements in clauses 6(2)(d), 6(2)(e) and 6(3)

If the Committee's recommendation for clause 25 is not accepted, we ask that the exception in clause 6 be revised in order to improve the ease with which the exception can be relied upon. The requirements in clauses 6(2)(d), 6(2)(e) and 6(3) should be removed for the following reasons:

- clause 6(2)(d): spreaders will not improve safety for vegetation growing beneath LV. Although most LBRA LV spans already contain an existing spreader, requiring a second spreader for spans >45m does not provide any practical safety benefit;
- clause 6(2)(e): the requirement to undertake an inspection is unnecessary given this exception relates to small branches which do not pose any risks to safety and the exception can only be relied upon in very limited circumstances set out in clauses 6(2)(a), (b) and (c); and
- clause 6(3): the 5 year record keeping requirement is excessive. A more sensible requirement may be to require a record of whether this exception has been exercised and if so, to identify the relevant span/tree.

See our suggested drafting in Appendix 2.

3. Exception to minimum clearance space for structural around uninsulated low voltage electric lines in low bushfire risk areas (clause 7)

Recommendation

Remove the requirements in clauses 7(2)(b), 7(2)(e)(iii) & (iv) and 7(3)(c) & (d) and amend clause 7(2)(d)

If the Committee's recommendation for clause 25 is not accepted, we ask that the exception in clause 7 be revised in order to improve the ease with which the exception can be relied upon. The requirements in clauses 7(2)(b) and 7(2)(e) should be removed, with the allowance in clause 7(2)(d) be amended for the following reasons:

- clause 7(2)(b): spreaders will not improve safety for vegetation growing beneath LV. Although most LBRA LV spans already contain an existing spreader, requiring a second spreader for spans >45m does not provide any practical safety benefit. If a structural branch (130mm or greater at where it enters the minimum clearance space) is to fall on electric lines, it is highly likely to cause damage whether one or more spreaders are present in the span;
- clause 7(2)(e)(iii) & (iv): given the requirement in clauses 7(2)(e)(i) and (ii) for a suitably qualified arborist to have inspected the tree of which the branch is a part and 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, the additional requirements in clauses 7(2)(e)(iii) and 7(2)(e)(iv) appear to add an unnecessary layer of further assessments. It also ignores the reality that the responsible person relies on the skills and observations of the arborist;
- clauses 7(3)(c) & (d): if our recommendation to remove the additional requirements in clauses 7(2)(e)(iii) and 7(2)(e)(iv) is accepted, a consequential amendment will need to be made to remove clauses 7(3)(c) & (d); and
- clause 7(2)(d): the 500 mm allowance should be increased to 700 mm as structural limbs are rigid and will have very limited movement, so will always provide for an adequate air gap of a minimum of 300 mm.

See our suggested drafting in Appendix 3.

4. Exception to minimum clearance space for structural branches around insulated low voltage electric lines (clause 4)

Recommendation

The minimum clearance space for structural limbs should be reduced to 100 mm for all span lengths (and other improvements to clause 4)

The recommendation to reduce the minimum clearance space for structural limbs to 100 mm for all span lengths relate to clauses 4(2)(c) and 4(2)(d). If accepted, this reduced minimum clearance space will be consistent with the position in South Australia.

As currently drafted, the exception in clause 4 is cumbersome and of limited use. We recommend the following improvements in order to improve the ease with which the exception can be relied upon:

- clauses 4(2)(e)(iii) and 4(2)(e)(iv): given the requirement in clauses 4(2)(e)(i) and (ii) for a suitably qualified arborist to have inspected the tree of which the branch is a part and 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, the additional requirements in clauses 4(2)(e)(iii) and 4(2)(e)(iv) appear to add an unnecessary layer of further assessments and should be removed. It also ignores the reality that the responsible person relies on the skills and observations of the arborist; and
- clauses 4(3)(b) and 4(3)(c): if our recommendation to remove the additional requirements in clauses 4(2)(e)(iii) and 4(2)(e)(iv) is accepted, a consequential amendment will need to be made to remove clauses 4(3)(c) & (d).

See our suggested drafting in Appendix 4.

5. Exception to minimum clearance space for small branches around insulated low voltage electric lines (clause 5)

Recommendation

Remove clause 5(2)(c)

Clause 5(2)(c) is irrelevant from an electric safety perspective. If it is considered safe to leave the branch in this condition (less than 10 millimetres wide at the point at which it enters the minimum clearance space), then logically it doesn't matter when it was last cut. There is also some perceived ambiguity around the word 'branch'. Once a branch has been removed from a tree, only a new/different branch will re-enter the clearance space.

See our suggested drafting in Appendix 5.

6. Application of “clear to sky” (clauses 27, 28 and 29)

Recommendation

Limit the “clear to sky” requirements to the space above “the applicable distance” in clauses 27(2)(b), 28(2)(b) and 29(2)(b)

Responsible persons must maintain a prescribed “applicable distance” between electric lines and vegetation.

The Code also requires adding an additional distance to the applicable distance to account for conductor sag and sway, which together is referred to as the “minimum clearance space”. Lastly, the Code requires “the space above the space described (above)” to be kept clear of all vegetation for open wire electric lines in HBRA and 66kV electric lines in LBRA. This means responsible persons must clear vegetation for sag and sway “to sky”.

Some spans can require very large horizontal clearance to achieve clear to sky compliance with clauses 27 - 29. The movement of electric lines (when taking into account electric lines sway in high wind events) should be reflected in the Code in the vicinity of electric lines height only and not applied “to sky”.

In many instances, especially for longer spans, the minimum clearance space can be many times larger than the applicable distance. This results in responsible persons having to clear very large volumes of vegetation that do not pose a risk to electric lines. It appears that the intent of keeping “the space above the space described (above)” clear of vegetation is to prevent branches from falling onto electric lines. During calm conditions, branches generally fall vertically downward so maintaining the applicable distance “to sky” mitigates this risk appropriately. In high wind events, especially in taller forests, vegetation fault investigation history demonstrates that branches can become windborne for very large horizontal distances in excess of 40 metres. Maintaining the minimum clearance space “to sky” does not prevent this from happening and creates negative impacts to responsible persons’ vegetation management programs, worker safety, the community, and the environment. These include:

- increased safety risks to vegetation workers;
- creation of future hazard trees (disease and decay from cutting wounds);
- reduced habitat for fauna; and
- increased heating affects through loss of canopy cover.

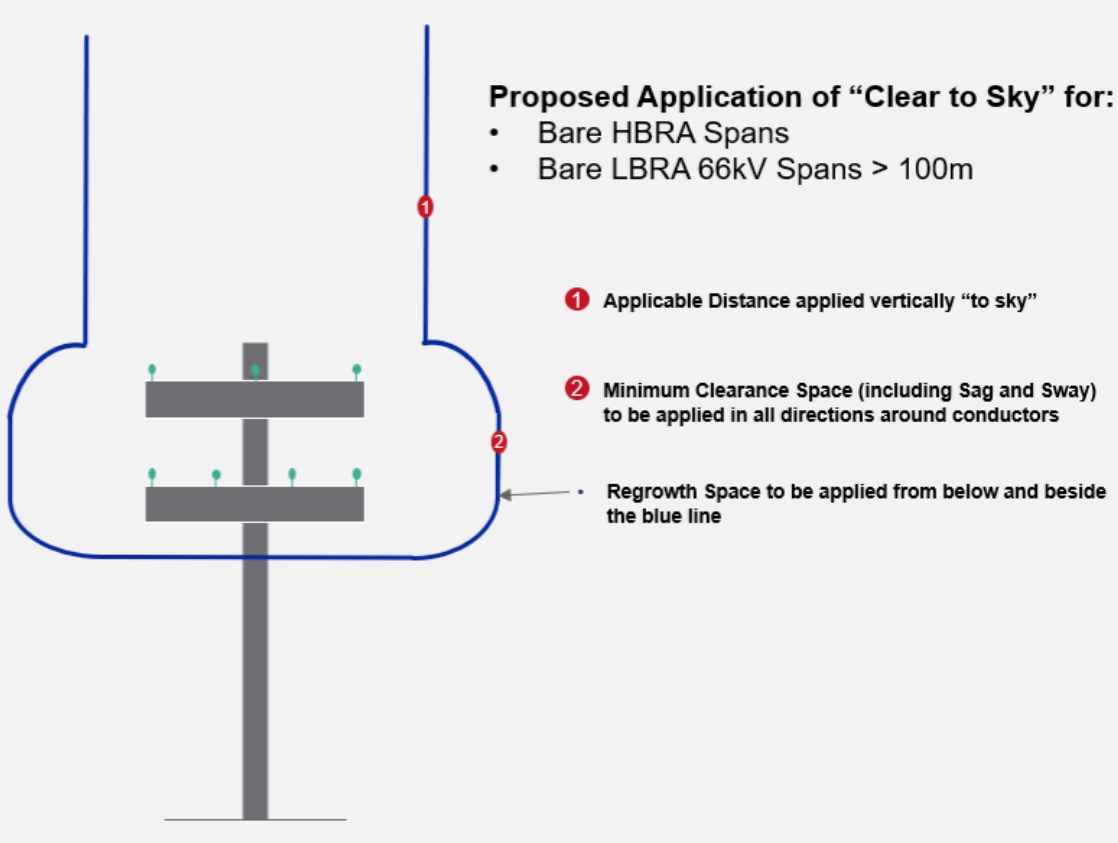
As a first preference, very large EWPs are utilised to undertake the work on the upper canopies. These are in short supply, move very slowly, and require a significant area to set up and operate. Where the site access or the height of trees prevents the use of EWPs, tree climbers are engaged to manage the higher vegetation. Climbing is well recognised as a less safe way to undertake tree pruning, and often the requirement of rigging cut debris can make the work dangerous and time consuming.

Cutting trees exposes them to ingress of decay and pathogens reducing trees’ useful life expectancy and contributing to the creation of future hazard trees that will pose a genuine

threat to the network, public safety and supply reliability. Creating future hazard trees from unnecessary pruning increases the risk of vegetation related electrical faults as well as increasing demand on an already stretched resource pool. Furthermore, unnecessary canopy loss in trees reduces habitat for fauna and reduces trees shade effect, creating increasing heat stress for the community.

The Committee believes that the requirement to “clear to sky” should only apply to the applicable distance and not the minimum clearance space.

If our recommendation is accepted, the result is illustrated in the following diagram:



See our suggested drafting in Appendix 6.

7. Owner or operator of transmission line must manage trees around minimum clearance space (clause 8)

Recommendation

Replace the reference to “minimum clearance space” with “applicable distance”

Clause 8(2) requires a responsible person to “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”. In relation to transmission infrastructure, minimum clearance space distances can be very large, even exceeding 20 metres horizontally. If vegetation momentarily enters the minimum clearance space as it falls, there is no risk to the safety or reliability of the transmission line. The risk only arises where the vegetation comes to within the flashover distance, or physically contacts a transmission line. On that basis, the current requirement is excessive and unwarranted.

The Committee recommends replacing the words “minimum clearance space”, with “applicable distance” to significantly reduce unnecessary tree removal without a material increase in risk to safety or reliability.

See our suggested drafting in Appendix 7.

8. Transmission lines (clause 30)

Recommendation

Review drafting of clause 30 to clarify requirements

Drafting should be reviewed for consistency with other provisions of the Code (no change to the substantive requirements of clause 30). In particular, terminology such as “applicable horizontal distance” and “applicable vertical distance” should be reviewed in light of the term “applicable distance” in the Code.

See our suggested drafting in Appendix 8.

9. Preparation and submission of management plans – frequency of submission to ESV (clause 9(2) of the Regulations)

Recommendation

Amend the requirement to prepare an annual management plan to once every 5 years (for a responsible person that is not a major electricity company)

Currently Councils must renew their management plan every year, even though the content rarely changes from year to year. Having to refresh, prepare and upload a management plan every year is time consuming and is considered unnecessary, especially as substantial changes are rarely required.

Councils recommend that the requirement be amended to require preparation of a management plan once every five years, in line in the five yearly cycle for major electricity companies.

10. Content of management plans and obligation to publish on internet site (clause 9(4) and clause 10(6) of the Regulations)

Recommendation

Streamline the content requirement for management plans and replace the obligation to publish the management plan with an obligation to provide a copy upon written request

Management plans are often lengthy and technical documents. They are also required to be publicly available. Committee members representing municipal councils have highlighted challenges in ensuring its management plan meet the requirements of the Code but at the same time meet its accessibility document requirements. That is, where published material must be written and formatted to be easily accessible to a range of reading and English language levels.

With that in mind, the Committee seeks the following requirements to be removed:

- names, roles, and contact details of staff with vegetation clearance management responsibilities. These frequently become outdated, meaning the management plan must be amended which creates an administration burden for both responsible persons and ESV;
- the need to duplicate certain sections of the regulations;
- qualifications and experience that the responsible person must require of the persons who are to carry out the inspection, cutting or removal of trees – this is unnecessary because regulation 616(2) of the Electricity Safety (General Regulations) 2019 already sets out specific requirements for qualified persons carrying out vegetation management work;
- description of the measures that must be used to assess the performance of the responsible person, given there is already a requirement to set out details of the audit processes that must be used to determine the responsible person's compliance with the Code; and
- replacing the obligation to publish a copy of the management plan on the responsible person's internet site with an obligation to provide a copy of the same to any person upon written request.

The Committee also expressed a desire for flexibility in how the responsible person covers information in the management plan, such as whether to present information using words, maps, tables or lists.

See our suggested drafting in Appendix 9.

Appendix 1

Clause 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) is located in a low bushfire risk area.

(2) The minimum clearance space ~~for~~ above 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 conductor sag and sway.

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

(d) The ***applicable distance*** for the middle 2 thirds of the span is –

(i) if the span distance is less than or equal to 45 metres – 1000 millimetres; or

(ii) 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 –

1000 + ((SD – 45) x (1500 ÷ 55))

where

SD is the span distance; or

(iii) if the span distance is greater than 100 metres – 2500 millimetres.

(3) The minimum clearance space beside and below a span of the electric line –

(a) the applicable distance; and

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

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

(d) The ***applicable distance*** for the middle 2 thirds of the span is –

(a) if the span distance is less than or equal to 45 metres – 300 millimetres; or

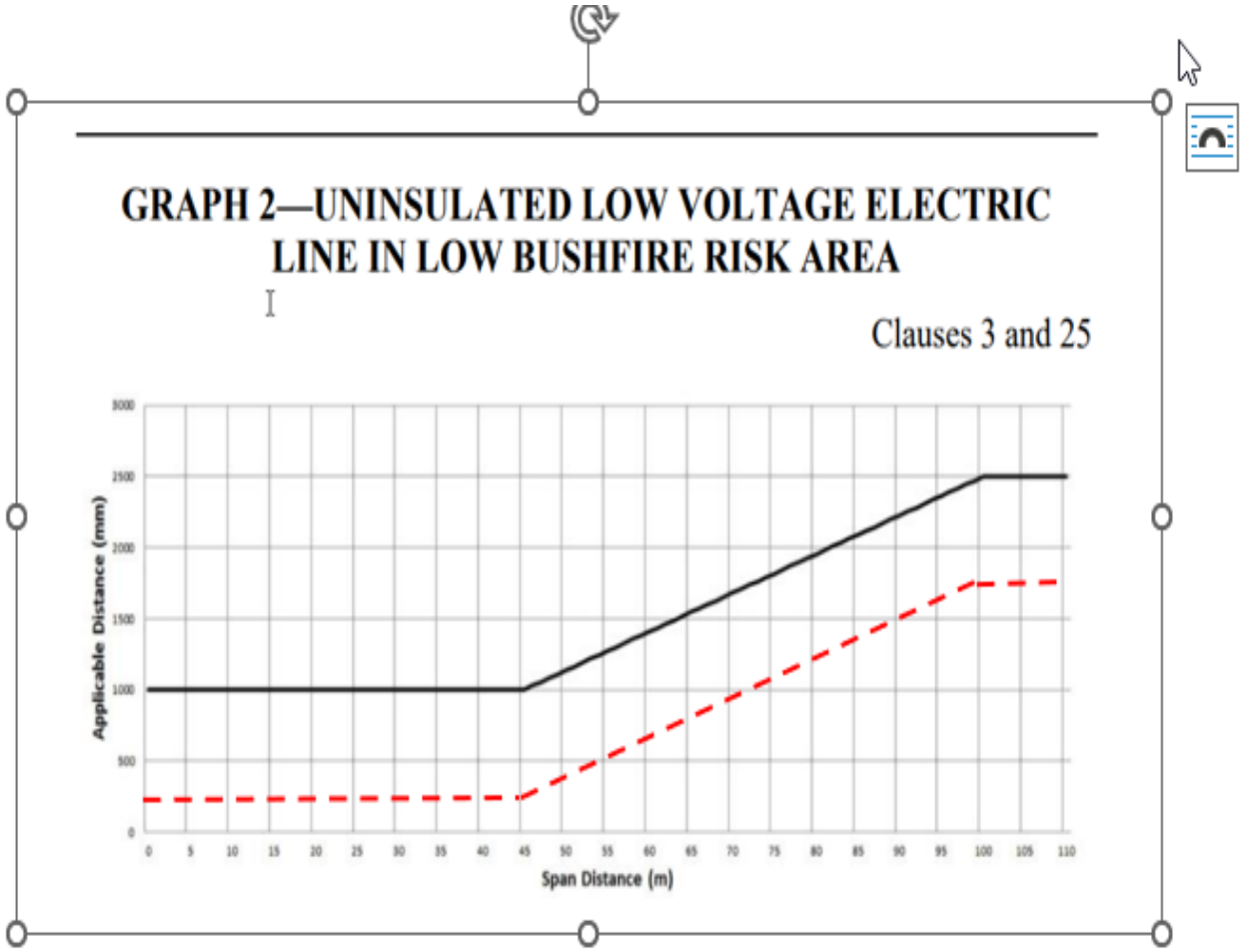
(b) if the span distance is greater than 45 metres and less than or equal to 100 metres – the distance calculated in accordance with the following expression –

$300 + ((SD – 45) \times (1500 \div 55))$

where

SD is the span distance; or

(c) if the span distance is greater than 100 metres – 1800 millimetres.



Notes to Graph 2

Solid line depicts the minimum clearance space above a span of the electric line

Dotted line depicts the minimum clearance space beside and below a span of the electric line

(1) The applicable distance incudes allowances for sag and sway of the conductor 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 conductor. 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 conductor (see clause 21(2)).

(4) The minimum clearance space for an electric line span 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 an electric line span to which clause 25 applies is 1000 millimetres above a span of the electric line and 300 mm for a span beside and below the electric line.

New clause (exception)

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 an electric line span if—

a) the electric line is—

i. an uninsulated cable;

ii. a low voltage electric line;

iii. located in a low bushfire risk area; and

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

c) the branch is greater than 150 millimetres beside or above the electric line;

d) there are no small branches originating from the surface of the branches within 300 millimetres of the electric line; and within the last 14 months—

i. the branch has been assessed by a suitably qualified arborist on behalf of the responsible person;

ii. the branch has been assessed as posing a low likelihood of failure on to the electric line; and

iii. the responsible person has implemented measures to effectively mitigate any identified risks.

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

a) each assessment referred to in subclause (2)(d)(i) and 2(d)(ii); and

b) all measures referred to in subclause (2)(d)(iii).

Appendix 2

Clause 6

Exception to minimum clearance space for small branches growing under 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 an electric line span if—

a) the electric line is—

i. an uninsulated cable; and

ii. a low voltage electric line; and

iii. located in a low bushfire risk area; and

b) the branch is less than 10 millimetres wide at the point at which it enters the minimum clearance space and is no more than 500 millimetres inside the minimum clearance space; and

c) the point at which the branch originates is below the height of the electric line; and

d) ~~in the case of a branch that comes within the minimum clearance space around the middle 2 thirds of the span, the span is fitted with—~~

i. ~~one conductor spreader if the length of the span does not exceed 45 metres; or~~

ii. ~~2 conductor spreaders if the length of the span exceeds 45 metres; 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.~~

e) ~~within the last 14 months—~~

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

ii. ~~the responsible person has completed an assessment of the risks posed by the branch; and~~

iii. ~~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 an electric line span 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) ~~each assessment referred to in subclause (2)(e)(ii);~~

c) ~~all measures referred to in subclause (2)(e)(iii).~~

Appendix 3

Clause 7

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 an electric line span if—

a) the electric line is—

i. an uninsulated cable; and

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 2 thirds of the span, the span is fitted with—~~

i. ~~one conductor spreader if the length of the span does not exceed 45 metres; or~~

ii. ~~(ii) 2 conductor spreaders if the length of the span exceeds 45 metres; 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~~ 700 millimetres inside the minimum clearance space; and

e) within the last 14 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 fall 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 an electric line span 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).~~

Appendix 4

Clause 4

Exception to minimum clearance space for structural branches around insulated 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 an electric line span 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

c) ~~in the case of a span distance of 40 metres or less~~, the branch is more than ~~150~~ 100 millimetres from the line; ~~and~~

d) ~~in the case of a span distance greater *than 40 metres, the branch is more than 300 millimetres from the line; and*~~

e) within the last 14 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 an electric line span in accordance with clause (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).~~

Appendix 5

Clause 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 an electric line span if—

a) the electric line is—

i. an insulated cable; and

ii. (a low voltage electric line; and

b) the branch 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 12 months.~~

Appendix 6

Clause 27(2)(b)

Uninsulated 66 000 volt electric line 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 is greater than 100 metres, an additional distance that allows for conductor sag and sway; and

b) the space above the ~~space described in paragraph (a)~~ applicable distance.

Clause 28(2)(b)

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

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

b) 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 conductor sag and sway; and

c) the space above the ~~space described in paragraph (a)~~ applicable distance.

Clause 29(2)(b)

Uninsulated 66 000 electric lines in a hazardous bushfire risk area

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

c) 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 conductor sag and sway; and

d) the space above the ~~space described in paragraph (a)~~ applicable distance.

Appendix 7

Clause 8

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~~ applicable distance around that line if the tree falls.

Appendix 8

Clause 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 horizontal limits, extends downward from the level of the line for the ~~applicable~~ relevant vertical distance; and

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

~~(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~~2) 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~~ horizontal limits of the minimum clearance space is the sum of—

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

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

(b) the ~~applicable vertical distance~~ vertical limits of the minimum clearance space is the sum of—

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

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

Column 1 *Nominal voltage*	*Column 2* *Horizontal* *Applicable ~~horizontal~~ distance (without allowance for sag and sway)*	*Column 3* *Vertical* *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.

Appendix 9

Clause 9(4) of the Regulations

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

(a) ~~the name, position, address and telephone number of the individual who was responsible for the preparation of the management plan;~~

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

(c) ~~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;~~

(d) the objectives of the management plan;

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

(f) any hazardous bushfire risk areas and low bushfire risk areas are identified within the responsible persons management in the land referred to in paragraph (f) ~~(as indicated on the map);~~

…

…

j) the management procedures that the responsible person will adopt to ensure compliance with the Code, which—

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

ii. for the purposes of determining a minimum clearance space in accordance with Division 1 of Part 3 of the Code —

A. must reference Schedule 2 of the Code *or* specify the method for determining an additional distance that allows for conductor sag and sway; and

B. may provide for different additional distances to be determined for different parts of an electric line span;

Note 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.

…

…

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

(p) ~~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 and the Electricity Safety (General) Regulations 2019;~~

Clause 10(6) of the Regulations

(6) The responsible person must ~~ensure that~~ provide a copy of the current management plan ~~is published on the responsible person's Internet site~~ to any person within 14 days of a written request.