Re-making of the Electricity Safety (Electric Line Clearance) Regulations

Statement of Reasons

Background

The Electricity Safety (Electric Line Clearance) Regulations 2015 expire on 28 June 2020 and are to be re-made. The re-making process has involved preparation of a new Code of Practice for Electric Line Clearance, as adopted in the proposed 2020 Regulations, and a Regulatory Impact Statement (RIS) that examined the costs and benefits of the preferred regulatory model and of various options.

The Electric Line Clearance Consultative Committee was consulted in the development of the proposed Regulations before a consultation version of the Regulations was released together with the RIS. The development of the RIS involved targeted consultation with electricity distribution and transmission businesses, municipal councils, vegetation management contractors and other stakeholders.

The RIS and an exposure (consultation) draft of the proposed Regulations were published on 4 November 2019, which commenced a mandatory public consultation period. Public consultation closed on 6 March 2020.

Glossary

Term/Acronym	Meaning Full Name
Act	*Electricity Safety Act 1998*
Code or Code of Practice	Code of Practice for Electric Line Clearance, as adopted in the Electricity Safety (Electric Line Clearance) Regulations
ELC	Electric line clearance
ELCMP	Electric line clearance management plan, which certain responsible persons are required to prepare by 31 March each year.
ESV	Energy Safe Victoria
LBRA	Low bushfire risk area
HBRA	Hazardous bushfire risk area
MEC	Major electricity company (i.e. licensed electricity distribution or transmission company)
ORP	Other responsible person. These are municipal councils and other persons, not being MECs, who are repsonsible under Part 8 of the Act for keeping tress clear of electric lines
RIS	Regulatory Impact Statement

Matters raised in stakeholder submissions to the proposed Electricity Safety (Electric Line Clearance) Regulations 2020 - Submissions

20 written submissions were received during the public consultation period. Stakeholder comments and change suggestions are set out in the table below together with ESV's responses and, where applicable, supporting reasons.
Refer to original submissions for context and background; these can be downloaded from the ESV website.

Regulation/Code clause #	Stakeholder	Stakeholder comment	ESV response and reasons
regulation 1(Objectives) (b)(ii) a standard and practices to protect the health of trees	Corangamite Shire	Council supports this approach and believe this has been a missing component of the process for managing trees around powerlines. Street trees in rural towns are often heavily damaged from excessive pruning and long timeframes between pruning cycles.	Noted.
	Municipal Association of Victoria (MAV)	The proposed change is welcome, however, stronger wording is needed to convey the value and importance of trees. The objectives of the regulations should explicitly reference the need to factor in environmental and amenity considerations. The 1996 regulations / code of practice included the following objectives: • *to `ensure that management procedures balance fire safety, reliability of the electricity system and community costs with conservation values, in the best interests of the people of Victoria';* *and* • *to `ensure that management procedures minimise the effect of powerlines on vegetation and establish strategies to progressively achieve a sustainable environment unaffected by the presence of powerlines.'* We would support reintroduction of this wording. As noted earlier in this submission, excessive and damaging cutting of vegetation by the distribution businesses, or their contractors, particularly in rural townships, remains a far too common occurrence.	Noted. Energy Safe Victoria (ESV) has amended the objectives, to convey the value and importance of trees, within the power conferred by the Act. The relevant heads of power - in sections 151 and 151A of the Act - do not authorise revising the objectives as described in the submission. The 1996 Code of Practice pre-dates the Electricity Safety Act 1998. Amendment to the Act would be required to enable inclusion of new provisions such as those suggested. ESV accepts instances of excessive and damaging pruning occur, and that there are instances of trees under powerlines that cannot be cut to compliance and also retain pre-cutting amenity value if they have been pruned too infrequently over the life of the tree.
	Hancock Victorian Plantations (HVP)	HVP supports the general change to the objectives of the regulation to protecting the health of trees and supports the implementation of Option 2 to remake the current Regulations but with targeted changes to improve the effectiveness and efficiency of the regulations. Despite the existence of the regulations there have been instances of significant non-compliance and failure to clear trees that presented a clear risk of starting a fire. The 2014 Jack River – Egans Road fire destroyed over 1,660 hectares of plantation and burnt through nearly 3,000 hectares of forest and agricultural land in the Yarram region. This fire was started from a self-sown tree growing beneath the powerline into the clearance space until it contacted the powerline.	Noted. ESV has increased its audit, inspection and enforcement activities in the last three years with respect to vegetation management around electric lines. The intent has been to increase compliance with the regulations, with subsequent reduction of risks of harm. ESV has identified there are some specific risks related to plantations, and has planned increased monitoring of plantations (where there are also powerlines).
	Green Triangle Forest Products (GTFP)	Supports the general change to the objectives of the regulation to protecting the health of the trees.	Noted.
regulation 1(b)(iv) - (other matters or maintenance of electric lines)	AusNet	In line with the changes proposed 1(b)(iii), AusNet Services suggests that this clause be modified to clarify that it is the maintenance of vegetation clearances to electric lines, as opposed to general maintenance of the electric lines.	Not accepted. The proposed wording is consistent with the definition of "maintenance" in section 3 of the Act specifically in relation to keeping vegetation clear of an electric line.
regulation 9(2) (preparation of management plan)	Greater Shepparton City Council	The one change we would like amended is that the (Part 1, Regulation 9(2) responsible officer is extended to 5 years, meaning the Management plan needs to be signed off by ESV on a 5 year basis similar to - Part 1, Regulation 9(3) and Part 1, Regulation 10(2)	Not accepted. ESV's evaluation of council electric line clearance management plans (ELCMP's) shows that councils do not yet have sufficiently robust or integrated ELC management systems to effectively manage their risks. The frequency with which councils are required to prepare ELCMPs will be reviewed again at the next opportunity.
	Corangamite Shire	Council believes that the requirement for a responsible person should also be adjusted to be on a five year cycle. This is supported by the fact that the issues which apply for major electricity companies also apply to other responsible persons. In addition to this the level, amount and risk of pruning undertaken by particularly municipalities is far less than major electricity companies. It would also appear from the examples provided that major fires have occurred due to major electric companies and not other responsible person areas. Council contracts are also typically aligned to the regulation updates and therefore major changes are not required between regulation updates.	
regulation 9(3) - (MEC preparation of management plan)	AusNet	AusNet Services supports this amendment, aligning the requirements for the submission of vegetation management plans with those for bushfire mitigation management plans and electricity safety management schemes.	Noted.
regulation 9(4)(f) - (management plan)	City of Boroondara	Supported in principle. However accountability needed for CFA and/or MFB (Melbourne) to provide to responsible persons or on their website.	Noted. ESV understands that there is an agreement in place to make that data available through Land Victoria as the fire hazard rating and subsequent mapping review (low risk bushfire areas (LBRA) and hazardous risk bushfire areas (HBRA)) is progressively updated.
	Municipal Association of Victoria (MAV)	Supported in principle. Timely cooperation from Fire Rescue Victoria (formerly CFA) and the MFB in providing councils with access to bushfire risk mapping will be essential.	
	City of Greater Geelong	Qualified support. For councils and authorities that have a large amount of both LBRA and HBRA areas the provision of maps that are adequate for operational use can result in a document that is unwieldy and not suitable for operational use. The City of Great Geelong provides maps indicating the general boundaries in the Plan and provides operational access to the maps through an in-house mapping system. The proposed change does not provide guidance on how the maps should be presented within the plan and for what purpose they serve (if for operational or guidance purposes).	The inclusion of maps in ELCMPs depicting LBRA and HBRA areas will enable responsible persons to clearly identify the difference in clearance requirements. If required, ESV will provide guidance to Council with respect to how maps should be presented.
regulation 9(4)(p) - (qualifications & experience of person who inspect/cut/remove trees)	AusNet	*'in accordance with the Code' replaced with:* *'in accordance with the Code and the Electricity Safety (Installations) Regulations 2009* AusNet Services assumes this will be updated to reference the Electricity Safety (General) Regulations 2019.	Accepted. The proposed Regulations as finalised will reference the Electricity Safety (General) Regulations 2019.
regulation 9(4)(r) - (disputes relating to electric line clearance)	AusNet	*'dispute resolution procedures' replaced with:* *'a procedure for the independent resolution of disputes to electric line clearance'* AusNet Services supports this amendment combined with the deletion of Clause 19 Dispute Resolution of the Code.	Noted.
regulation 12 (offences & infringement notices)	AusNet	AusNet Services notes that Clause 3(1) has been added as a prescribed offence. In line with recommendation 9 of the Grimes Review, AusNet Services would welcome further guidance from ESV on their 'Compliance and Enforcement Policy' to provide greater understanding of ESV's 'compliance pyramid' model and how the addition of this prescribed offence will be applied in practice.	Accepted. ESV is developing its enforcement approach and will publish enforcement guidelines that address line clearance requirements.
	City of Kingston	The draft Electricity Safety (Electric Line Clearance) Regulations 2020 includes the ability for ESV to issue infringements up to $45k (250 penalty points) per tree at their discretion for non-compliant trees. Previously ESV has taken a risk-based approach to enforcement action to date, the change to make any non-compliance an infringeable offence does raise concerns that ESV may change this approach with a focus on enforcement rather than working with Councils to achieve compliance. If ESV was to enforce compliance, Council would need to undertake a combination of removal of structural branches, tree removal and pay the DB to install ABC which again adds costs to the community and impacts amenity. With tree removal often being the only option, this would also result in a further decline in tree canopy cover at a time when an increase in tree canopy is required. This change appears to be intended to make it simpler for ESV to enforce compliance with the Code. Council is supportive of greater cooperation with ESV and the relevant Distribution Business not enforcement, to ensure there is a balance outcome of compliance and amenity.	Under the Act, the infringement penalty for an offence against a provision of the Act or the regulations is one-tenth of the maximum penalty for the offence. The applicable infringement penalty for contravening the minimum clearance space requirement in the Code of Practice, in the case of a body corporate, would be 25 penalty units (being 10% of the maximum penalty under section 90 of the Act). A penalty unit is currently (in 2019/2020) valued at $165.22. Also, a person who receives an infringement notice can elect not to pay the penalty and request that the matter of the alleged offence be heard by a magistrate. ESV will commence administration of the new infringement two years after introduction of the new ELC 2020 regulations. This will allow time for responsible persons to understand compliance obligations, and for ESV to develop and publish relevant enforcement guidance. ESV will continue working with councils and other responsible persons to improve compliance with the Code and ELC requirements but, as a safety regulator, ESV would be failing in its responsibilities if it did not enforce compliance with applicable requirements and minimum standards where such action is warranted and in the public interest.
Clause 1 of the Code - (Definitions)	United Energy	For consistency with the *Electricity Safety (Management) Regulations, AS 5577 Electricity network safety management systems,* and the definition of a *published technical standard* on page 14 of these regulations, the definitions of *aerial bundled cable, covered conductor, electrical cable, insulated cable,* and *insulating cover* should include reference to "an equivalent *published technical standard*" in addition to the reference to Australian Standards (AS)	Not accepted. The regulations apply to a range of responsible persons, including responsible persons (other than a distribution company) that own or operate an electric line, or install or use and electric line, and these persons may not have adequate engineering supports to appropriately assess an equivalent published technical standard. In addition ESV has not been made aware of conductors/cables that do not comply with the standards defined in the Regulations. Clauses 31-35 of the proposed Regulations enable a responsible person to seek approval for use of an alternative compliance mechanism in respect of an electric line span or class of electric line spans. The draft ELC Regulations prescribe safe distances from moving tree branches to electrical conductors/cables while the General Regulations relate safe to distances to persons, mobile plant, and stationary structures. As part of re-making the regulations ESV reviewed the definitions in the draft ELC Regulations and the Electricity Safety (General) Regulations 2019. ESV was not able to align and use the same definitions across both sets of regulation because they have different purposes.
	AusNet	*Modified (d) of definition of 'insulated cable' form '(d) insulating cover' to:* *'(d) a conductor to which [an] insulating cover has been applied'* AusNet Services supports this amendment, with the addition of the 'an' to the definition.	Accepted. The change will be included in the finalised ELC Regulations.

Clause 1 of the Code - (Definitions - '*suitably qualified arborist*')	City of Greater Geelong	Not supported. The proposed reduction in qualifications of a *'suitably qualified arborist'* under the Regulations appears to be inadequate in meeting the objectives of the Regulations, as well as carrying out its functions relating to assessment of trees subject to the Regulations. The definition *'suitably qualified arborist'* under the proposed Regulations means an arborist who has the "*the qualification of National Certificate III in Arboriculture including the 'Perform a ground-based tree defect evaluation' unit of competency, or an equivalent qualification."* This will mean a reduction from Level 4 qualification, to a Level 3. However, the adequacy of the Level 3 of competency has been found to be inadequate for an arborist who is tasked with making assessments on the structural safety of the tree and its branches. From a 2015 Coronial Inquest (Inquest) involving Bendigo Council investigated the death of a 4-year old who was killed by a large branch which fell from an inspected tree in a public park in Bendigo. The Inquest recommended that Council arborists, who also make assessment on health and safety of trees, be qualified in a Level 5 Diploma of Arboriculture, which is taken to include above ground assessments competencies. Given the similar roles and functions of *'suitably qualified aborist'* under the Regulations, and the inherent risk to the community of having underqualified arborists conduct assessments of Council assets, the City of Greater Geelong does not support the proposed reduction in qualification levels. The qualifications should remain the same or be increased to a Level 5 qualification.	Not accepted. ESV acknowledges Council's perspective on the Coronial Inquest recommendation, and Council's health and safety obligations with respect to trees. ESV proposes to revise the definition to clarify that a minimum qualification is specified in the ELC Regulations, and it may be appropriate for Councils to consider a higher level of qualification in the context of other obligations. ESV has reviewed the Australian Skills Quality Authority training framework and accepts that the Certificate 3 qualification, together with the additional module specified in the proposed Regulations, is fit for purpose in the context of the ELC Regulations, and aligns with current training courses offered in Victoria. The amended training requirement as now proposed was endorsed by industry stakeholders including Arboriculture Australia. The Code calls for assessment and advice on hazard, significant, exception and important trees to be undertaken by a suitably qualified arborist. The required minimum qualification consists of: • core units AHCARB302 and AHCARB313, which must be completed as part of AHC30816 – *Certificate III in Arboriculture* , include many learning elements relating to inspection and assessment of tree health and condition. • AHCARB403 – *Perform a ground-based tree defect evaluation* (an elective offered as part of the diploma) - provides further detail related to determining tree hazards, the likelihood of failure and examining trees for visual indicators of defects.
	Municipal Association of Victoria (MAV)	We have received mixed feedback on this proposed change. While some councils support the change, others argue that a certificate 3 is inadequate and that a level 5 qualification should be mandated. We note that in September 2015, Coroner Byrne handed down his findings for the inquest into the tragic death of Patiya May Schreiber. Three-year-old Patiya was killed when she was hit by a falling tree branch in a park in Bendigo. One of the Coroner's recommendations arising from the inquest was that `all inspections must be undertaken by a qualified (level 4 or above) arborist'.  The Coroner further noted that a `level 5 qualification or above is preferred, but this may not be applicable to all council-based situations at present'. Under the regulations, suitably qualified arborists have responsibilities in relation to inspection of trees to which exception clauses are being applied; assessment of suspected "hazard trees; and inspection of indigenous or significant trees earmarked for removal. For the hazard tree-related requirements in particular, a lessening of minimum qualification level could be seen as problematic and in conflict with the Coroner's recommendation.	
Clause 3(1) of the code (minimum clearance space clear of trees)	CitiPower/Powercor	With regards to the inclusion of Clause 3(1) of the Code of Practice as a prescribed offence for which infringement notices may be served, we are suggesting the following. In line with recommendation 9 of the Grimes Review, it is requested that ESV provide further guidance on their 'Compliance and Enforcement Policy' to provide greater understanding of ESV's 'compliance pyramid' model and how the addition of this prescribed offence will be applied in practice.	Accepted. ESV is committed to improving the transparency of its enforcement approach, including in the ELC requirements, and will publish guidance on its approach to enforcement.
	Jemena	While Jemena do not oppose the use of penalty provisions, namely Clause 3(1) of the Code of Practice, and our electric line clearance program is designed to enhance compliance. We are, nevertheless, concerned that the penalty units per event is extremely harsh. Without publicly nominating the volume, it is a relatively small number of infringements which could consume Jemena's entire annual cutting budget. Therefore Jemena suggests that recommendation 9 of the Grimes Review, ESV provide further information on their 'Compliance and Enforcement Policy' to provide all responsible persons a level of comfort that ESV's 'compliance pyramid' is applied fairly, equitably and consistently. Jemena also recognises the encouragement/justification value of a penalty system. JEN Recommendation: ESV to issue a guidance statement to the industry describing how these penalty provisions are intend to be used. Alternatively a new provision could be added to the ELC regulations outlining the discretionary powers in consideration when penalties are to be issued.	Accepted. ESV will commence administration of the new infringement two years after introduction of the new ELC 2020 regulations. This shall allow time for responsible persons to understand compliance obligations, and for ESV to develop relevant compliance guidance. ESV is committed to improving the transparency of its enforcement approach, including in the ELC requirements, and will publish guidance on its approach to enforcement. Under the Act, the infringement penalty for an offence against a provision of the Act or the regulations is one-tenth of the maximum penalty for the offence. The applicable infringement penalty for contravening the minimum clearance space requirement in the Code of Practice, in the case of a body corporate, would be 25 penalty units (being 10% of the maximum penalty under section 90 of the Act). A penalty unit is currently (in 2019/2020) valued at $165.22.
Clause 4 of the Code - (exception to minimum clearance structural branches around LV electric lines)	City of Kingston	Although Kingston currently has an estimated 1,000 trees with structural limbs in the clearance space, as stated above, Kingston Council has been advised by the relevant Distribution Business (United Energy) that there have been no outages in the network due to Council-owned and managed trees. There also haven't been any reports of fires or electrocutions relating to Council trees. As such, there seems to be a reasonable case to allow greater exceptions for these structural limbs. Street trees offer a range of benefits including reduced stormwater runoff, shading and cooling, habitat for local fauna, and carbon sequestration. In a warming climate the value of these benefits will only increase. Considering the data received by Council regarding outages, fires and electrocutions, the removal of the structural limbs or trees with structural limbs in the clearance space would have an unnecessary negative impact on Kingston's urban forest to the detriment of the local community. Council's preference is to allow many of the existing large limbs near uninsulated LV in LBRA to remain. If the draft regulations remain, it is possible Kingston will have trees that are non-compliant and will be forced to remove large numbers of mature trees and structural branches. This will come at significant financial, environmental, aesthetic and political risk and cost, for local government and the community. This is in the absence of data or other evidence to confirm that current practice for LV in LBRA is unsafe.	Noted. There has been no increase in the cutting requirements between the 2015 and the proposed 2020 Regulations. Amendments to the Code have resulted in reduced clearance requirements in specific circumstances. The existing exception under which structural limbs are permitted to remain inside the clearance space, subject to management conditions, is being continued.
	City of Greater Geelong	Supported with the request that the 12 month timeframe referenced in subclause (e) be extended to 14 months to enable management requirements to work in conjunction with annual inspection cycles.	Accepted. ESV agrees with suggested change to timeframes to apply to all exception clauses
	Municipal Association of Victoria (MAV)	Regulation 4(c) Supported with request that the 12-month timeframe referenced in subclause (e) be extended to 14 months to enable management requirements to work in conjunction with annual inspection cycles.	
Clause 4(2),(3) of the Code	Active Tree Services	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. 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	There has been no change between the 2015 and proposed ELC 2020 Regulations with respect to insulated conductors. The existing exception under which structural limbs are permitted to remain inside the clearance space, subject to management conditions, is being continued. The purpose of this exception clause is to allow structural limbs near insulated electric lines. It recognises structural limbs are unlikely to move excessively as a result of environmental conditions. As structural limbs are unlikely to contact this category of electric lines it is unlikely to result in abrasion and therefore affect the properties of its insulation. Advice provided by ESV and MEC electrical engineers indicates constant or intermittent contact between insulated LV electric lines and structural limbs could cause abrasion, and therefore presents an electrical safety hazard.
Clause 5(2)(b,c) of the Code		Proposed changes marked in red (2) (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.* Refer to the relevant clause in current Ausnet specification Network Standard NW000-S0146.	Not accepted. This exception clause reflects exemption provisions that were available in a previous version of the ELC regulations and reintroduction was requested in 2015. There has been no change from 2015 to the proposed ELC 2020 Regulations. This exception clause permits small branches (<10mm width) to be able to be in contact with an insulated cable (specific definitions for insulated cable apply). This was informed by advice provided from ESV and major electricity company engineers that indicated that constant or intermittent contact between insulated LV electric lines and branches >10mm could cause abrasion and consequently present an electrical safety hazard.
Clause 6 of the Code - (exception to minimum clearance for small branches)	City of Greater Geelong	Supported with the request that the 12 month timeframe referenced in subclause (e) be extended to 14 months to enable management requirements to work in conjunction with annual inspection cycles.	Accepted. ESV agrees with suggested change to apply to all exception clauses.
	Municipal Association of Victoria (MAV)	Reg 6, not 5A (2015 ELC Regulations) Supported with request that the 12-month timeframe referenced in subclause (e) be extended to 14 months to enable management requirements to work in conjunction with annual inspection cycles.	
	Active Tree Services	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).	Noted. This exception clause reflects exemption provisions that were available in a previous version of the ELC regulations and reintroduction was requested in 2015. There has been no change from 2015 to the proposed ELC 2020 Regulations. The basis of exception clause and the necessary additional management requirements is not strictly related to prevention of failing branches. It relates to electricity safety matters such as: • As the limb is closer to the electric line the risk is higher therefore should be inspected more frequently • climbability of trees • ensuring the safety of vegetation management work

Clause 7 of the Code - (exception to minimum clearance space for structural branches around uninsulated LV in LBRA)	City of Boroondara	*Exceptions - Structural Limbs near Uninsulated LV in LBRA* For uninsulated LV spans equal to or less than 45m in length in LBRA, the Code prescribes a minimum clearance distance of 1000mm. Under the current (2015) Code, structural branches are permitted up to 500mm from the line if certain conditions and management requirements are met. One of those requirements is that spans up to 45 metres in length are fitted with one conductor spreader and spans greater than 45m in length are fitted with two spreaders. It is our understanding that there are currently many thousands of mature trees in urban areas that have structural branches within the minimum clearance space of 1000mm. Councils estimate that a significant majority of those trees are also closer to the line than the 500mm clearance distance permitted under the exception clause within the Code. Clause 4 of the current (2015) Code sets a minimum clearance distance of 150mm for spans 40m or less in length for structural branches around insulated LV in LBRA (and a minimum clearance distance of 300 mm for spans 40m or longer). In the absence of data or evidence to prove that structural branches around uninsulated LV lines pose greater risk of outage or public safety than structural branches around insulated lines, Council recommends that the exception clause for structural branches around uninsulated LV in LBRA be amended to provide for a minimum clearance distance of 150mm for spans less than or equal to 45m in length.	Not accepted. This exception clause reflects exemption provisions that were available in a previous version of the ELC regulations and reintroduction was requested in 2015. There has been no change from 2015 to the proposed ELC 2020 Regulations. The purpose of this exception clause is to allow structural limbs to remain within 500mm of the minimum clearance space for LV electric lines. The clearance requirements between vegetation and insulated and uninsulated electric lines are different, reflecting the different inherent risks. In LBRA the policy determination of appropriate clearance between trees and powerlines is informed by, in order of priority: * ensuring the electrical safety of the community and the vegetation workers * protecting the reliability of electricity supply, and * preventing localised fires started by vegetation contacting powerlines The Electricity Safety (General) Regulations 2019 separately include minimum allowable distances between structures and powerlines and persons and powerlines, and the No Go Zones administered by ESV and WorkSafe describe minimum safety requirements for the distance between overhead powerlines and work being performed. ESV will work with the MAV and Councils to further understand the safety risks and clearance requirements between structural limbs and uninsulated LV in LBRA. Should it become apparent during this work that there is scope to amend the Regulations and Code, and Councils believe change is necessary, ESV will raise the matter for consultation with the ELCCC.
	Municipal Association of Victoria (MAV)	*Structural branches near uninsulated LV in LBRA* For uninsulated LV spans equal to or less than 45m in length in LBRA, the Code prescribes a minimum clearance distance of 1000mm. Under Clause 6 of the current (2015) Code, structural branches are permitted up to 500mm from the line if certain conditions and management requirements are met. One of those requirements is that spans up to 45 metres in length are fitted with one conductor spreader and spans greater than 45m in length are fitted with two spreaders. It is our understanding that there are currently many thousands of mature trees in urban areas that have structural branches within the minimum clearance space of 1000mm. Councils estimate that a significant majority of those trees are closer to the line than the 500mm clearance distance permitted under the exception clause within the Code. Clause 4 of the current (2015) Code sets a minimum clearance distance of 150mm for spans 40m or less in length for structural branches around insulated LV in LBRA (and a minimum clearance distance of 300 mm for spans 40m or longer). In the absence of data or evidence to prove that structural branches around uninsulated lines pose greater risk of outage or public safety than structural branches around insulated lines, we recommend that the exception clause for structural branches around uninsulated LV in LBRA be amended to provide for a minimum clearance distance of 150mm for spans less than or equal to 45m in length. The proposed exception reflects the "real world" proximity of the low height of uninsulated LV to mature trees and limbs. It does not condone contact. Structural limbs have minimal movement and the management requirements attached to this proposed exception ensure risk is monitored and managed. If adopted this will closely reflect what is already happening in practice in our inner urban areas and significantly reduce major branch and tree removal. RECOMMENDATION: that the exception clause for structural branches around uninsulated LV in LBRA be amended to provide for a minimum clearance distance of 150mm for spans less than or equal to 45m in length.	
	City of Boroondara	Council does not accept the Exception minimum clearances for a structural limb near uninsulated LV being >500mm when insulated LV >150mm is acceptable in LBRA. If the ESR is enacted as drafted, councils will likely either remain non-compliant or, if ESV's enforcement approach shifts as anticipated, Council's across Victoria will be forced to remove large numbers of mature trees and structural branches. Both approaches come at significant financial, environmental, aesthetic and political risk and cost, for local and state government within Victoria. Council has therefore made recommendations within this submission to more accurately balance the risk of outages to the amenity value of the vegetation in relation to these two risks solely in LBRA.	
	City of Kingston	Kingston Council notes that the regulations appear cautious regarding the approach to setting minimum clearance distances for vegetation around low voltage (LV) powerlines in low bushfire risk areas (LBRA). To meet the required compliance with the regulations would involve Council incurring additional financial costs with questionable value. There would also be social and environmental costs due to excessive removal of vegetation. The reality is that this can result in non-compliance as the level of clearance required is difficult to maintain without increasing resources. Instead, Council believes a more realistic allowance for clearance is required for LBRA to ensure public safety but to also balance amenity considerations. Council has adopted this position based on feedback from our Distribution Business (United Energy) which has consistently advised that they have had no incidents of outages due to Council trees over the last 5 years of the existing regulations. This is despite an ESV audit in 2019 which indicated there were numerous non-compliant trees within the inspected sites, requiring Council to redirect existing tree maintenance resources away from programmed works.	
Clause 8 of the Code - (owner of transmission lines must manage trees around min clearance space)	AusNet	AusNet Services' proposes that the 2020 regulations are amended to address this inconsistency by making the following amendments (deletions struck through and marked in green, additions marked in red): 8 *Owner or operator of transmission line must manage trees around the minimum clearance space* A responsible person who owns or operates a transmission line must – (a) ... (b) manage trees adjacent to the transmission line to avoid, as far as practicable, a tree entering the ~~minimum clearance~~ line of fall tree hazard space around that line if the tree falls.	Not accepted. The requirement for the owner or operator of a transmission line to manage trees adjacent to the transmission line, to avoid a falling tree entering the minimum clearance space as far as practicable, was introduced in the 2010 regulations. The minimum clearance space is required to include an additional distance to allow for sag and sway of the cables of the transmission line. These requirements reflect the potential severe risks associated with loss of power supply from transmission line, including by trees falling on to powerlines and the identified need to reduce vegetation under and adjacent to transmission lines. These risks have not been reducing since 2010.
	Transmissions Operations Australia (TOA & TOA2)	TOA-TOA2 proposes the following amendment to clause 8 of the Code of Practice (suggested changes in strike-through and red) *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) ... (b) manage trees adjacent to the transmission line to avoid, as far as practicable, a tree entering the ~~minimum clearance space~~ line of fall tree hazard space around that line if the tree falls.	
	United Energy	*Responsible person may cut or remove hazard tree* provides a mechanism to minimise, *as far as practicable,* the risk of fire initiated by fall-in vegetation (refer to UE's comment to RIS - 2.2.2.1 Fires for further details)	Noted. Clause 9 of the Code allows a responsible person to 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 in to contact with an electric line, and it is irrelevant whether the tree is outside the minimum clearance space.
Clause 9 of the Code (Cutting of tree to comply with Standard)	Active Tree Services	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.	Noted.
Clause 11 of the Code - (Indigenous vegetation)	Corangamite Shire	*Indigenous Vegetation Schedule 1, Part1, Regulation 16(3). Also linked to Schedule 1, Part 1, Regulation 5A* Council agree with this change, however think it should be strengthened to include Trees within an urban area and specifically provide timeframes for pruning cycles. Council has experienced significant damage to street trees by contractors working for major electricity companies who have a pruning cycle that is often greater than 3 years. Council has also been informed that in some rural areas the pruning cycle is 5 years unless complaints are received. These extended pruning cycles result in extensive pruning of street trees which reduced the amenity of the town and increases maintenance costs for Council. A number of towns in our municipality are in high rainfall areas and therefore trees have been cut back to a 1m stump. This is not a desirable outcome for the community.	Noted. Clause 11 of the Code requires minimising cutting or removal of indigenous or significant trees. These include (a) trees that are indigenous to Victoria (b) trees listed in a planning scheme to be of ecological, historical or aesthetic significance, and (c) trees of cultural or environmental significance (that is tree included in the Heritage Register, the Victorian Aboriginal Heritage Register, or flora listed as threatened under the Flora and Fauna Guarantee Act 2006 or listed on the Threatened Flora List with status 'endangered' or 'vulnerable, or a habitat of threatened fauna). ESV does have oversight of pruning cycles through ELCMP evaluation and approval processes, however, ESV does not mandate pruning frequency. Responsible persons are required to make ELCMPs publically available and should a Council consider pruning cycles in its municipality are not appropriate they should consult with the MEC to seek variation of pruning cycles. This is particularly the case where ELC pruning may affect significant trees where the electricity business has regulatory obligations that restrict the amount of clearing that can be done.
Clause 23(b) of the Code - (sag & sway)	AusNet	The reference to regulation 9(4)(i)(ii), should be *9(4)(j)(ii)*	Accepted.
Clause 24 of the Code (notes #2)	Active Tree Services	*The 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'* To be replaced by the earlier wording in clause on insulated cables. Possibly with a that is when clearing is required it should be a minimum of 300mm.	Not accepted. The reference to 'earlier wording in clause on insulated cables' relates to an exception clause that allows for reduced clearances. Clause 24 relates to the minimum clearance requirements for insulated electric lines in all areas. The relevant exception clause allows structural limbs near insulated electric lines. It recognises structural limbs are unlikely to move significantly as a result of environmental conditions. As structural limbs are unlikely to contact this category of electric lines it is unlikely to result abrasion of the electric line. The exception clause allows relief from the standard code clearance requirements with additional management requirements.
		The 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' Possibly with a comment that is when clearing is required it should be to a minimum of 300mm	Not accepted. Insulated electric lines in all areas have a minimum clearance space of 300mm for spans <40m (and includes sag and sway), and the clearance requirements increase as the span lengthens until a 100m span requires a clearance of 900mm. A responsible person can apply a minimum clearance of 300mm under exception clause 4 with additional management requirements in the current 2015 ELC Regulations and these provisions shall continue in the proposed 2020 ELC Regulations.

Clause 25 of the Code - (uninsulated LV in LBRA)	AusNet	*Applicable distances for uninsulated conductor with span length greater than 100m in Low Bushfire Risk Areas (LBRA)* Including an allowance for sag and sway in the applicable distance used for the calculation of the minimum clearance space for spans up to 100m in LBRA, but excluding an allowance for sag and sway in the applicable distance for spans greater than 100m has resulted in double counting of an allowance for sag and sway for spans greater than 100m. This is resulting in the minimum clearance space for uninsulated conductors spans greater than 100m in LBRA being greater than the minimum clearance space for HBRA for conductors of the same voltage and span length. *AusNet Services suggests that the Code of Practice is revised to provide two methods for the determination of minimum clearance space for uninsulated conductor in LBRA:* **1.** For Responsible Persons who do not wish to, or do not have the capability to, calculate an allowance for sag and sway: Specify a deemed to comply minimum clearance space which includes an allowance for sag and sway for conductor span lengths up to 100m. This method shall not be used for conductor span lengths greater than 100m. **2.** For Responsible Persons who wish to calculate an allowance for sag and sway on a span by span basis: Specify applicable distances to which an allowance for sag and sway must be added to calculate the minimum clearance space. AusNet Services believes separating the requirements into two approaches will provide greater clarity as to when an allowance for sag and sway is, and is not, included in the quoted distances.	Not accepted. In 2015, the definition of insulated cable was broadened compared with 2010, and the Code introduced linear calculations for clearance distances for electric lines in order to reduce the step changes in clearance requirements (that resulted in more clearance than necessary). The proposed Regulations and Code for 2020 retain the clearance requirements and obligations consistent with the 2015 ELC Regulations and Code. Sag and sway has been included in the minimum clearance space for spans <100m for insulated cables in all areas, and uninsulated LV and HV lines (including 66kV lines) in LBRA. The rationale for including sag and sway for spans up to 100m is that this enables responsible persons (primarily councils), other than owners or operators of electric lines, to have adequate information to be able to cut trees to comply with the Code. The majority of clearance obligations for responsible persons that do not own or operate an electric line will also typically be cutting vegetation for spans <100m. For spans >100m Councils can request assistance from the owner or operator of an electric line. Clause 21 requires the owner or operator of a supply network or distribution businesses to assist Councils on request to determine an additional distance that allows for cable sag and sway. The owners or operators of electric lines are well placed to understand the sag and sway characteristics of different conductors, string tensions, and different span lengths. Input from such entities has informed the inclusion of sag and sway in the clearance requirements for spans <100m for the iterations of the Regulations and Code. The minimum clearance space for uninsulated LV and HV lines in HBRA requires addition of sag and sway to all applicable distances near the pole and along the middle two thirds of the span regardless of span length. Likewise, for uninsulated LV and HV lines in LBRA >100m span length an additional distance must be added to the applicable distance near the pole and along the middle two thirds of the span. This may require consideration of the distance that has already been included for sag and sway for spans <100m. ESV acknowledges there may be instances where the calculations could result in LV lines >100m in HBRA assigned a larger clearance than for an HV span. ESV believes that the anomoly noted will seldom occur as the majority of span length of electric lines in LBRA is <100m. ESV is following up to to determine the number of 100m+ spans to which this would apply. From the perspective of electrical safety the proposed solution is unlikely to lead to further risk reduction of electrical fires associated with vegetation and electric lines. ESV will work with the electricity businesses to develop some guidance that provides further clarity with respect to clause 25 - clause 29. Should it become apparent during this work that the structure and language of the specific clauses can be improved, and the businesses believe amendment to the Code is warranted, ESV will consult with the ELCCC.
	Active Tree Services	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. Changes mande in red '*(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-'* In other states minor contact between cycles is allowed as an example see Ausgrid 6.6.3	Not accepted. In Victoria there are other responsible persons, such as Councils, for whom the VESI clearance requirements cannot apply. Including these changes as the minimum clearance space required under the code would result in a reduced electricity safety outcome. Reduced clearances can be achieved through applying the exception clauses.
Clause 26 of the Code - (uninsulated HV in LBRA); Schedule 2 graphs 1-6	AusNet	For consistency of terminology with the rest of the document, AusNet Services propose the title be changed from '*…66 000 volt electrical line…* ' to: *"…66 000 volt electric line…'* (clause 26)	Accepted. For the purposes of language consistency.
	CitiPower/Powercor	For clarification, the AD should be defined as: the minimum distance between any vegetation and the nearest conductor at all times, at all points along the span. The sag and sway allowance will determine the maximum conductor movement envelope. CPPAL recommends that the Code of Practice be revised to provide two methods for determining the minimum clearance space for electric lines: *1. Minimum clearance which includes an allowance for sag and sway (spans <100m):* employ the existing graphs 1, 2, 3, and 4 for spans up to 100m long, which include an allowance for sag and sway. This method shall only be used for electric line spans < 100m long, and the MCS = AD. *2. Allowance for sag and sway method (HBRA and LBRA):* Specify the constant applicable distance based on line voltage/type, to which an allowance for sag and sway must be added to calculate the minimum clearance space, MCS = AD+sag+sway. CPPAL recommends that the AD for uninsulated electric lines in HBRA and LBRA should be: - LV – 1000mm - HV – 1500mm - 66kV – 2250mm For insulated electric lines in HBRA and LBRA the AD should be 300mm.	Not accepted. In 2015, the definition of insulated cable was broadened compared with 2010, and the Code introduced linear calculations for clearance distances for electric lines in order to reduce the step changes in clearance requirements (that resulted in more clearance than necessary). The proposed Regulations and Code for 2020 retain the clearance requirements and obligations consistent with the 2015 ELC Regulations and Code. Sag and sway has been included in the minimum clearance space for spans <100m for insulated cables in all areas, and uninsulated LV and HV lines (including 66kV lines) in LBRA. The rationale for including sag and sway for spans up to 100m is that this enables responsible persons (primarily councils), other than owners or operators of electric lines, to have adequate information to be able to cut trees to comply with the Code. The majority of clearance obligations for responsible persons that do not own or operate an electric line will also typically be cutting vegetation for spans <100m. For spans >100m Councils can request assistance from the owner or operator of an electric line. Clause 21 requires the owner or operator of a supply network or distribution businesses to assist Councils on request to determine an additional distance that allows for cable sag and sway. The owners or operators of electric lines are well placed to understand the sag and sway characteristics of different conductors, string tensions, and different span lengths. Input from such entities has informed the inclusion of sag and sway in the clearance requirements for spans <100m for the iterations of the Regulations and Code. The minimum clearance space for uninsulated LV and HV lines in HBRA requires addition of sag and sway to all applicable distances near the pole and along the middle two thirds of the span regardless of span length. Likewise, for uninsulated LV and HV lines in LBRA >100m span length an additional distance must be added to the applicable distance near the pole and along the middle two thirds of the span. This may require consideration of the distance that has already been included for sag and sway for spans <100m. ESV will work with the electricity businesses to develop some guidance that provides further clarity with respect to clause 25 - clause 29. Should it become apparent during this work that the structure and language of the specific clauses can be improved, and the businesses believe amendments to the Code are required, ESV will consult with the ELCCC.
	Jemena	*Applicable Distances for uninsulated electric lines in the Low Bushfire Risk Area (LBRA)* Jemena believe the Code allows for double counting of the sag and sway values when the Applicable Distance is calculated for spans over 100m long. As an example, for High Voltage (HV, e.g. 22kV) spans which are less than 45m long no sag or sway is included in the Applicable Distance of 1500mm. Then for spans greater than 45m and less than 100m an addition distance is included to account for sag and sway. That is, 1500mm plus an additional 1000mm for a span of 100m. *JEN Recommendation:* In the Code of Practice, Graph 1 be amended such that the Applicable Distance for spans greater than 100m reverts back to the same value as for spans less than 40m, i.e. 300mm. In the Code of Practice, Graphs 2, 3 and 4 be amended such that the Applicable Distance for spans greater than 100m reverts back to the same value as for spans less than 45m, i.e. 1000mm, 1500mm and 2250mm respectively. Note (1) under the 'Notes to Graphs 1, 2, 3 and 4' be amended to clarify that the sag is added to the Applicable Distance below the conductor only and, that the sway is added to the Applicable Distance beside the conductor only. That is, the sag is not added to the sway and then together added to the Applicable Distance; This value would be meaningless and the Applicable Distance would be unnecessarily excessive. At Jemena the sag and sway calculations are made at the worst case design thresholds which means they are individual, stand-alone, independent values.	
	United Energy	There appear to be inconsistencies in the *applicable distance* (AD) and the *minimum clearance space* (MCS) requirements for uninsulated electric lines in LBRA. Recommendations: For clarification, the *applicable distance* be defined as: "*applicable distance is the minimum distance between vegetation and the nearest conductor at all times, at all points along the span.*" The sag and sway allowance will determine the maximum conductor movement envelope, and when added to the *applicable distance*, determine the *minimum clearance space*. United Energy suggests that the Code of Practice be revised to provide two simple methods for determining the ***minimum clearance space*** for all electric lines: *1. Deemed to comply method (spans <100m):* employ the existing graphs 1,2,3, and 4 for spans up to 100m long, which include an allowance for sag and sway. This method shall only be used for electric line spans <100m long, and the MCS = AD. *2. Allowance for sag and sway method (HBRA and LBRA):* Specify a constant *applicable distance* based on line voltage/type, to which an allowance for sag and sway must be added to calculate the *minimum clearance space*, MCS = AD+sag+sway The *applicable distance* for electric lines specified as being: • Insulated - 300mm • LV - 1000mm • HV - 1500mm • 66KV - 2250mm Adopting these two methods would mean that: • Schedule 2, graphs 1-6 can be deleted • Part 3 Division 1, clauses 23-29 can be deleted	
	City of Boroondara	*Minimum Clearances for HV in LBRA of Melbourne* Council agrees the risk of vegetation contact with HV is not acceptable and will manage this requirement to the Code. Council does not accept the ESR minimum clearances currently set for a voltage (22KV) at least double the majority of operating voltages (11/6.6kv) across Melbourne. In LBRA of Melbourne the predominant Distribution Voltages are 11 or 6.6kv. In this Councils case 96% of Councils HV cables are operating at 11kv. As previously noted historically the regulations, ELCCC and ESV compliance focus has been on rural fire risk prevention. However this bias has resulted in unsubstantiated excessive vegetation removal in LBRA of Melbourne due to Minimum Clearances being set for rural voltage levels at least double what the majority of the operating voltage is across Melbourne. Extrapolating the clearance distances prescribed for LV, 22kV and 66kV, Council anticipates that the minimum clearance distances for 6.6kV and 11kV would be materially less than the 1500mm currently prescribed. One estimate is 1060mm for 6.6kV and 1160mm for 11kV. Council recommends that the Code prescribe minimum clearance distances for each of 6.6kV, 11kV and 22kV operating voltages for LBRA. This will more accurately balance the risk and health of trees for the respective local communities as per the objectives stated in the ESR. Notwithstanding the recommendation, Council understands that vegetation cannot be allowed to contact HV cables and will continue to manage vegetation to the minimum clearances within the Code.	Not accepted. Earlier editions of the Regulations and Code included clearance requirements for 6.6kV, 11kV and 22kV. ESV notes the clearance distances for these lines were the same so the information was consolidated, and referred to as uninsulated high voltage electric lines. There have been no increases in the cutting requirements between the 2015 and 2020 Regulations and Code. ESV does have documented instances of electric shock, fire, property damage and other electricity safety risks due to trees contacting LV electric lines. Examples include: • fires caused by trees pushing LV conductors together causing flash overs • high voltage injection caused by trees growing through LV conductor and then touching HV • constant contact with LV conductors causing them to break and fall to ground while they are still energised
	Municipal Association of Victoria (MAV)	The Code does not currently differentiate between different HV electric lines with the exception of 66kV. That is, the same clearance distances apply for electric lines that are 6.6kV, 11kV or 22kV. The current prescribed minimum clearance distance of 1500mm for HV (other than 66kV) spans less than 45m in length is calculated on the nominal voltage risk of 22kV. We understand that the majority of HV lines in metropolitan Melbourne are 6.6kV or 11kv. Extrapolating the clearance distances prescribed for LV, 22kV and 66kV, we anticipate that the minimum clearance distances for 6.6kV and 11kV would be materially less than the 1500mm currently prescribed. One estimate is 1060mm for 6.6kV and 1160mm for 11kV. We recommend that the Code prescribe minimum clearance distances for each of 6.6kV, 11kV and 22kV operating voltages for LBRA. Notwithstanding the recommendation we understand that vegetation cannot be allowed to contact HV powerlines. RECOMMENDATION: that the Code prescribe minimum clearance distances for each of 6.6kV, 11kV and 22kV operating voltages for LBRA.	

Clause 27 of the Code - (uninsulated 66kV in LBRA)	AusNet	For consistency of terminology with the rest of the document, AusNet Services propose the title be changed from '*…66 000 volt electrical line…'* to: "*…66 000 volt electric line…'* (refer to AusNet comment for clause 25)	Accepted. For the purposes of language consistency.
Clause 28 of the Code - (uninsulated LV & HV in HBRA)	AusNet	For consistency of terminology with the rest of the document, AusNet Services propose the title be changed from '*…66 000 volt electrical line…'* to: *"…66 000 volt electric line…'* (refer to AusNet comment for clause 29)	Accepted. For the purposes of language consistency.
	Jemena	*Applicable Distances for uninsulated electric lines in the Hazardous Bushfire Risk Area (HBRA)* Jemena believe the Code allows for double counting of the sag and sway values when the Applicable Distance is calculated for spans over 45m long. As an example, in Graph 5 spans which are less than 45m long no sag or sway is included in the Applicable Distance of 1500mm. Then for spans greater than 45m an addition distance is prescribed for spans up to 500m long and capped at 750mm. That is, 1500mm plus an additional 750mm for a span of 500m or more. Jemena believes this is a remnant from previous regulations which may have included a value for sag and sway. JEN Recommendation: In the Code of Practice, Graph 5 be amended such that the Applicable Distance for spans greater than 45m reverts back to the same value as for spans less than 45m, i.e. 1500mm. In the Code of Practice, Graphs 6 be amended such that the Applicable Distance for spans greater than 45m reverts back to the same value as for spans less than 45m, i.e. 2250mm. Note (1) under the 'Notes to Graphs 5 and 6' be amended to clarify that the sag is added to the Applicable Distance <u>below</u> the conductor only and, that the sway is added to the Applicable Distance <u>beside</u> the conductor only. That is, the sag is not added to the sway and then together added to the Applicable Distance; This value would be meaningless and the Applicable Distance would be unnecessarily excessive. At Jemena the sag and sway calculations are made at the worst case design thresholds which means they are individual, stand-alone, independent values. That is, the worst case for sag is when there is no wind; the worst case for sway is at maximum sag and maximum wind.	Not accepted. In 2015, the definition of insulated cable was broadened compared with 2010, and the Code introduced linear calculations for clearance distances for electric lines in order to reduce the step changes in clearance requirements (that resulted in more clearance than necessary). The proposed Regulations and Code for 2020 retain the clearance requirements and obligations consistent with the 2015 ELC Regulations and Code. Sag and sway has been included in the minimum clearance space for spans <100m for insulated cables in all areas, and uninsulated LV and HV lines (including 66kV lines) in LBRA. The rationale for including sag and sway for spans up to 100m is that this enables responsible persons (primarily councils), other than owners or operators of electric lines, to have adequate information to be able to cut trees to comply with the Code. The majority of clearance obligations for responsible persons that do not own or operate an electric line will also typically be cutting vegetation for spans <100m. For spans >100m Councils can request assistance from the owner or operator of an electric line. Clause 21 requires the owner or operator of a supply network or distribution businesses to assist Councils on request to determine an additional distance that allows for cable sag and sway. The owners or operators of electric lines are well placed to understand the sag and sway characteristics of different conductors, string tensions, and different span lengths. Input from such entities has informed the inclusion of sag and sway in the clearance requirements for spans <100m for the iterations of the Regulations and Code. The minimum clearance space for uninsulated LV and HV lines in HBRA requires addition of sag and sway to all applicable distances near the pole and along the middle two thirds of the span regardless of span length. Likewise, for uninsulated LV and HV lines in LBRA >100m span length an additional distance must be added to the applicable distance near the pole and along the middle two thirds of the span. This may require consideration of the distance that has already been included for sag and sway for spans <100m. ESV acknowledges there may be instances where the calculations could result in LV lines >100m in HBRA assigned a larger clearance than an HV span. ESV believes that the anomoly noted will seldom occur as the majority of span length of electric lines in LBRA is <100m. ESV is following up to to determine the number of 100m+ spans to which this would apply. Also, from an electrical safety perspective the proposed solution is unlikely to lead to further risk reduction of electrical fire associated with vegetation and electric lines. ESV will work with the electricity businesses to develop some guidance that provides further clarity with respect to clause 25 - clause 29. Should it become apparent during this work that the structure and language of the specific clauses can be improved, and the businesses believe amendments are warranted, ESV will consult with the ELCCC.
	United Energy	There appear to be inconsistencies in the *applicable distance* (AD) and the *minimum clearance space* (MCS) requirements for uninsulated electric lines in LBRA. Recommendations: For clarification, the *applicable distance* be defined as: *"applicable distance is the minimum distance between vegetation and the nearest conductor at all times, at all points along the span."* The sag and sway allowance will determine the maximum conductor movement envelope, and when added to the *applicable distance*, determine the *minimum clearance space*. United Energy suggests that the Code of Practice be revised to provide two simple methods for determining the *minimum clearance space* for all electric lines: *1. Deemed to comply method (spans <100m):* employ the existing graphs 1,2,3, and 4 for spans up to 100m long, which include an allowance for sag and sway. This method shall only be used for electric line spans <100m long, and the MCS = AD. *2. Allowance for sag and sway method (HBRA and LBRA):* Specify a constant *applicable distance* based on line voltage/type, to which an allowance for sag and sway must be added to calculate the *minimum clearance space*, MCS = AD+sag+sway The *applicable distance* for electric lines specified as being: • Insulated - 300mm • LV - 1000mm • HV - 1500mm • 66KV - 2250mm Adopting these two methods would mean that: • Schedule 2, graphs 1-6 can be deleted • Part 3 Division 1, clauses 23-29 can be deleted	
Clause 28(2)(b) of the Code - (uninsulated LV & HV in HBRA)	Active Tree Services	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.	Noted. ESV acknowledges the importance of worker safety with regard to electrical safety and working at heights. There are measures to protect the safety of workers by other means (e.g. engineer problem out, access to equipment, shut down power if required). The requirement to clear to the sky followed the outcomes of the Royal Commission after Black Saturday 2009.
Clause 29 of the Code - (uninsulated 66kV in HBRA)	AusNet	*Applicable distances for uninsulated conductors in Hazardous Bushfire Risk Areas (HBRA)* As the minimum clearance space is determined by adding an allowance for sag and sway to this applicable distance, AusNet Services questions the rationale behind having an applicable distance which increases with span length. The minimum clearance space for uninsulated conductor in HBRA is the sum of the applicable distance plus an allowance for conductor sag and sway. The applicable distance is the minimum distance vegetation must be kept from the conductor to prevent a flashover and provide safe working distances. Currently the applicable distance for uninsulated conductors in HBRA varies with span length which AusNet Services believes should be a constant value. The variable component for determining the required minimum clearance space should only be the allowance for conductor sag and sway.	Not accepted. ESV has reviewed the iterations of the Code back to 1999, and that included considering the addition, or not, for sag and sway and vegetation regrowth, and different span lengths for the different electric lines. There has not been a constant distance that applies to different span lengths for what is currently referred to as the 'applicable distance'. ESV will work with the electricity businesses to develop guidance that provides further clarity with respect to clause 25 - clause 29. Should it become apparent during this work that the structure and language of the specific clauses can be improved, and the electricity businesses believe change is necessary, ESV will raise the matter for consultation with the ELCCC.
Clause 30 of the Code - (Transmission Lines)	Transmissions Operations Australia (TOA & TOA2)	TOA-TOA2 proposes the following amendment to clause 30 of the Code of Practice (suggested changes in *red*) *30 Transmission lines* (1) ... (2) ... *(3) The line of fall tree hazard space for a span of transmission line is –* *(a) the space bounded by a circle centred on the conductor at maximum sag in the still position with radius equal to the applicable line of fall tree hazard distance; and* *(b) the space above that space.* (4) For a transmission line of a nominal voltage that is specified in an item in Column 1 of the following table— (a) ... (i) ... (ii)... (b)... (i) ... (ii) ... *(c) the applicable line of fall tree hazard distance is –* *(i) The distance specified in Column 3 for that item.*	Not accepted. The requirement for the owner or operator of a transmission line to manage trees adjacent to the transmission line, to avoid a falling tree entering the minimum clearance space as far as practicable, was introduced in the 2010 regulations. The minimum clearance space includes additional distance to allow for sag and sway of the cables of the transmission line. These requirements reflect the potential severe risks associated with loss of power supply from transmission line, including by trees falling on to powerlines and the identified need to reduce vegetation under and adjacent to transmission lines. These risks have not been reducing since 2010.
	AusNet	Currently there are ambiguities in the management of trees located outside the transmission line easement with the potential to fall into the transmission line easement. AusNet Services believe this ambiguity can be addressed by defining two separate spaces; the 'managed vegetation zone', defined as the minimum clearance space in the Code of Practice, and the 'line of fall tree hazard space', which is the distance from the conductor in the still position to manage the risk of flashover if a tree adjacent to the transmission line fall towards the conductor. AusNet Services' proposes that the 2020 regulations are amended to address this inconsistency by making the following amendments (additions marked in *red*): *Transmission lines* (1) ... (2) ... *(3) The line of fall tree hazard space for a span of transmission line is –* *(a) the space bounded by a circle centred on the conductor at maximum sag in the still position with radius equal to the applicable line of fall tree hazard distance; and* *(b) the space above that space.* *(4)* 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) ... *(c) the applicable line of fall tree hazard distance is –* *(i) The distance specified in Column 3 for that item.*	Not accepted. The requirement for the owner or operator of a transmission line to manage trees adjacent to the transmission line, to avoid a falling tree entering the clearance space as far as practicable, was introduced in the 2010 regulations. The clearance space has included the additional space to allow for sag and sway of the cables of the transmission line. These requirements reflect the potential severe risks associated with loss of power supply from transmission line, including by trees falling on to powerlines and the identified need to reduce vegetation under and adjacent to transmission lines. These risks have not been reducing since 2010.
Increase Tree Management Requirements	Corangamite Shire	Council are unsure how this will be defined and complied with given the need for this exemption can be self- determined and with different priorities between the major electricity companies and municipalities who own the tree assets and amenity value they provide to the community.	The submission references "Schedule 1, Part 1, Regulation 1". ESV is unsure what this comment is in reference to.
Suggested change/requirement		*Site clean-up timeframes (e.g. prior to declared fire danger period)* Council has experienced issues with contractors not removing trimmed materials for extended periods (up to 5 weeks) as standard practice and in some cases never returning to make good the area. This increases the fire risk and creates unnecessary concerns from the community about the standard of work being provided. It is understandable that some retention of material can have a time advantage however this timeframe requires management as the electric line clearance responsibility appears to end once the vegetation is on the ground and not when it is removed. Five weeks after our fire danger often sees Corangamite shire in the middle of January when these piles of tree limbs are being removed, which is the height of our fire danger period.	Noted. While there is no regulatory obligation for MEC to include targets for the clearing of debris, such targets are contained within procedures that are relatable to their ELCMPs, which are publicly available. Should this be a particular issue to a Council and consultation with the MEC does not resolve the matter dispute resolution processes exist in approved electric line clearance management plans.
Suggested change/requirement		*Replacement of inappropriate trees in urban areas* Should the regulations also provide some guidance and provision for the development of management plans for specific areas (e.g. towns) where trees that are inappropriate around powerlines can be replaced with appropriate species. This would need to be at the cost of the major electricity supplier and responsible person, with the agreement between the tree asset owner, interested parties and public consultation. This process has the ability to reduce long term costs for electric line clearance management to major electricity companies and significantly reduce the workload over time.	Noted. ESV will produce educational material, in consultation with the ELCCC, to provide guidance about appropriate tree planting under powerlines.

Suggested change/requirement	City of Boroondara	*Exception Minimum Inspection Timeframe* The Code includes a number of exception clauses that allow vegetation to grow inside the minimum clearance space on the condition that a range of conditions are met. Councils note that the exception clauses as drafted, and that currently exist, require the responsible person to undertake a number of actions “within the last 12 months”. For any nominated exception trees to be inspected, risk quantified, and mitigations completed, the time period before Infringement Offences can be applied needs to be longer to work in conjunction with annual inspection cycles.	Accepted. ESV agrees with suggested change to apply to all exception clauses.
Suggested change/requirement	Municipal Association of Victoria (MAV)	*Exception clauses* The Code includes a number of exception clauses that allow vegetation to grow inside the minimum clearance space on the condition that a range of conditions are met. Councils note that the exception clauses as drafted, and that currently exist, require the responsible person to undertake a number of actions “within the last 12 months”. Councils request that this period be increased to 14 months to enable vegetation to be inspected on an annual cycle, with any remediation measures then able to be implemented within two months. This change would reflect existing practice. RECOMMENDATION: that the exception clauses be amended to extend the period in which responsible persons must undertake a number of actions from 12 months to 14 months.	
Suggested change/requirement	City of Boroondara	*Infringement Offences in LBRA* When considered along with Councils overall submission the introduction of Infringement Offences in LBRA is strongly opposed. If the regulations are finalised as drafted, councils will likely either remain non-compliant or, if ESV’s enforcement approach shifts, they will be forced to remove large numbers of mature trees and structural branches. Both approaches come at significant financial, environmental, aesthetic and political risk and cost, for local government, for the Victorian government and for the community. This is in the absence of incident data or other evidence to indicate that current practice for LV in LBRA is unsafe.	Noted. ESV will commence administration of the new infringement two years after introduction of the new ELC 2020 regulations. This shall allow time for responsible persons to understand compliance obligations, and for ESV to develop relevant compliance guidance. ESV is committed to improving the transparency of its enforcement approach, including in the ELC requirements, and will publish guidance on its approach to enforcement. Under the Act, the infringement penalty for an offence against a provision of the Act or the regulations is one-tenth of the maximum penalty for the offence. The applicable infringement penalty for contravening the minimum clearance space requirement in the Code of Practice, in the case of a body corporate, would be 25 penalty units (being 10% of the maximum penalty under section 90 of the Act) and a penalty unit is currently valued at $165.22.
Suggested change/requirement		*Planned Vegetation Clearance Shutdowns* DB’s are charging Council on average $8,600(ex GST) for a vegetation clearance shutdown that is required for Council to meet compliance requirements however it also improves a DB’s likely revenue. Council recommends the Council’s be exempt from shutdown costs by DB’s.	Noted. This is outside the scope of the ELC Regulations and may be outside the scope of the Electricity Safety Act.
Suggested change/requirement		*Future ELCCC & Membership* As referenced in our submission historically the regulations, ELCCC and ESV’s compliance focus has been on rural HBRA fire risk prevention and the extensive removal of vegetation risk. Council supports in principle the current committee membership for the HBRA’s of Victoria. However, Council does not support the current ELCCC structure or membership for the LBRA of Victoria. The current state has created an inappropriate bias of focus and requirements in the development of the regulations over time for LBRA. The 79 Councils of Victoria’s role as public land managers for the trees are the substantial stakeholder representing the local community in the LBRA of Victoria. Accordingly Council recommends that: • The existing ELCCC constitution and membership is reviewed. The constitution of the committee be redefined to focus on HBRA. • A second equivalent committee be formed with appropriate Constitution and Council membership for the LBRA of Victoria.	Noted. The membership and functions of the ELCCC are determined under the Electricity Safety Act 1998. ESV will inform the Department of Environment, Land, Water and Planning (DELWP) with respect to submissions about the ELCCC. The DELWP provides Energy Policy advice to the Minister for Energy, Environment and Climate Change.
Suggested change/requirement	Municipal Association of Victoria (MAV)	*ELCCC membership* The constitution of the committee is out-dated and needs to be reviewed as a matter of priority. The VicRoads representative rarely, if ever, attends meetings. Following changes to the Act a few years ago, it no longer has line clearance responsibilities. Likewise, the Minister for Planning and the Minister for Environment’s nominees rarely, if ever, attend. The distribution businesses and transmission companies dominate the committee in terms of numbers. Greater local government representation on the committee is urgently needed. Likewise, given the increased understanding of the value and importance of trees in our urban areas, consideration should be given to appointing an independent expert in arboriculture. RECOMMENDATION: that Division 3 of the Electricity Safety Act be amended to provide for an Electric Line Clearance Consultative Committee that includes greater local government representation and at least one arboriculture expert.	Noted. The membership and functions of the ELCCC are determined under the Electricity Safety Act 1998. ESV will inform the Department of Environment, Land, Water and Planning (DELWP) with respect to submissions about the ELCCC. The DELWP provides Energy Policy advice to the Minister for Energy, Environment and Climate Change.
Suggested change/requirement	City of Boroondara	*Alternative Consultative Process Recommended* *1. ELCCC and timelines* Other than the introduction of Infringement Offences, the changes proposed to be included in the 2020 regulations essentially represent a tweaking of the current regulations. This is not unexpected given the Committee had limited opportunity to consider what, if any, more substantive changes should be made given the sunset timing for the existing regulations of 28 June 2020. 3. Council Recommendation Due to the above as well as the other related references throughout our submission Council recommends: • The Existing Regulations be extended for 6 months • A new consultation is completed during this period • A LBRA focused subcommittee be formed in the interim reporting to the ELCCC • The subcommittee recommendations form part of the public consultation for transparency	Noted. ESV thanks the ELCCC for its advice and input in relation to the Code and remaking the Electricity Safety (Electric Line Clearance) Regulations. Submissions to the Regulatory Impact Statement (RIS) have been reviewed and considered. These Regulations are not typical as they sunset every five years, and the ELCCC provides advice to ESV on the Code (that is a schedule to the Regulations). There may be some matters that warrant further consideration by the ELCCC, or subcommittee to the ELCCC that members can bring to the attention of the Committee.
Suggested change/requirement		2. Consultation Transparency The introduction of Infringement Offences is considered as material in nature and was not in our view consulted upon. There is no mention of this change or associated risk in the RIS for LBRA and the Exposure Draft was issued without tracked changes making it implausible a reasonable person would have discovered it. Therefore as is required for public consultancy to be effectively administered, the submissions received from consultation will not be adequately informed of the impact of this material change.	Noted. ESV apologises for not including the infringement penalty in the RIS. This was an unintentional oversight. ESV recognised this and made sure to raise the issue in other forums including the ELCCC and at stakeholder consultation meetings. ESV will commence administration of the new infringement two years after introduction of the new ELC 2020 regulations. This shall allow time for responsible persons to understand compliance obligations, and for ESV to develop relevant compliance guidance. ESV is committed to improving the transparency of its enforcement approach, including in the ELC requirements, and will publish guidance on its approach to enforcement. Under the Act, the infringement penalty for an offence against a provision of the Act or the regulations is one-tenth of the maximum penalty for the offence. The applicable infringement penalty for contravening the minimum clearance space requirement in the Code of Practice, in the case of a body corporate, would be 25 penalty units (being 10% of the maximum penalty under section 90 of the Act) and a penalty unit is currently valued at $165.22.
Suggested change/requirement	Central Victorian Greenhouse alliance	Abandon proposed change to make clause 3(1) of the Code an infringeable offence, or rework so that infringements only apply to non-compliance in HBRA and to vegetation contacting HV in LBRA	Not accepted. ESV will commence administration of the new infringement two years after introduction of the new ELC 2020 regulations. This shall allow time for responsible persons to understand compliance obligations, and for ESV to develop relevant compliance guidance. ESV is committed to improving the transparency of its enforcement approach, including in the ELC requirements, and will publish guidance on its approach to enforcement. Under the Act, the infringement penalty for an offence against a provision of the Act or the regulations is one-tenth of the maximum penalty for the offence. The applicable infringement penalty for contravening the minimum clearance space requirement in the Code of Practice, in the case of a body corporate, would be 25 penalty units (being 10% of the maximum penalty under section 90 of the Act) and a penalty unit is currently valued at $165.22.
Suggested change/requirement	Central Victorian Greenhouse alliance	Review Division 3 of the Electricity Safety Act as a matter of priority to provide for appropriate constitution of the ELCCC	Noted. The membership and functions of the ELCCC are determined under the Electricity Safety Act 1998. ESV will inform the Department of Environment, Land, Water and Planning (DELWP) with respect to submissions about the ELCCC. DELWP provides Energy Policy advice to the Minister for Energy, Environment and Climate Change.
Suggested change/requirement	[redacted]	1. In addition to current provisions the regulations should require that no tree branches may be of such height and width that if the tree were to fall that it could make contact with powerlines 2. No tree should be allowed to grow under powerlines if that tree would be likely to grow to such a height that it would interfere with powerlines 3. If any landholder planted a tree that impacted on powerlines, as per (2), the landowner would be responsible for the cost of removal 4. That if any power utility installed new lines above trees that would impact the powerlines, as per (2), then the power utility would be responsible for the cost of removal of that tree and replacement with suitable trees	Noted. Responsible Persons are required to have plans, processes and procedures to manage trees to keep them clear of electric lines. Suggested recommendations (1) and (2) would have a significant impact on environment and vegetation amenity. The Electricity Safety Act empowers ESV to require trees under powerlines to be cut or removed and this does occur. ESV will produce educational material, in consultation with the ELCCC, to provide guidance about appropriate tree planting under powerlines.
Suggested change/requirement	Groundline Engineering	1. Prescribed clearance zones in non-urban (i.e. HBRA) too small and do not allow for sag and sway and regrowth of vegetation 2. Allowing vegetation above HV conductors in some of the most bushfire prone areas (i.e. HBRA) is absurd - do not allow trees to overhang HV conductor in HBRA - assists with preventing falling branches 3. Trees outside clearance zone (which can fall in) are not adequately managed or maintained to meet community expectations. Blown branches can be reduced significantly if appropriate care and assessment consistent with (NSW and SA) requirements to hazard trees	Noted The minimum clearance spaces for electric lines in HBRA require additional space to be added to the applicable distance to allow for sag and sway, if the distance has not already been included, such as insulated lines. The regulations and Code do not specifically refer to regrowth but this is addressed in the electric line clearance management plans that responsible persons are required to prepare. The Code does not allow trees to overhang HV conductor in HBRA. Clause 9 of the Code allows a responsible person to 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 in to contact with an electric line, and it is irrelevant whether the tree is outside the clearance space.
Suggested change/requirement		The impact of REFCL and enhanced ACRs on faults, reliability and community expectations * increased fault and outages at times of high bushfire risk impacting reliability * the aim should be to eliminate faults in the first place (i) ageing infrastructure and (ii) inadequate vegetation trimming	Noted. The regulation of electricity infrastructure elements (such as REFCLs and ACRs) is included in the Electricity Safety Act, the Electricity Safety (Management) Regulations and also bushfire mitigation regulations. The ELC Regulations require separation between electric lines and vegetation, and the ELCMPs of the electricity businesses are developed in recognition of these other responsibilities.

Suggested change/requirement	[redacted]	Propose a change / addition to the Clearance distances to powerlines to include something like “Power lines that provide power to essential services have clearance distances similar to that of Transmission lines”	Not accepted. Other regulatory frameworks apply to the electricity businesses to ensure supply reliability. The Regulations recognise critical supply aspects of the network i.e. sub transmission lines have enhanced clearance distances applied. With some exceptions, the Code does not specify a maximum clearance space requirement therefore responsible persons can apply greater clearance distances should they be considered necessary to protect reliability of supply. Applying transmission clearance distances would have a major impact on environment and amenity particularly in urban settings where entire tree populations would need to be removed to achieve this outcome.
Suggested change/requirement	[redacted]	There is a huge difference in how trees are pruned in rural communities when compared to urban and city streets. It is always a challenge to balance safety and amenity but the risk is much less with LV powerlines in LBRA. I have been a member of the CFA for over 50 YRS and have occupied all positions including Captain and have attended many fires, but have never been to a fire caused by LV lines in LBRA.	Noted. ESV has evidence of fire starts caused by vegetation contacting LV electric lines in LBRA and this is particularly concerning in areas where LBRA borders HBRA. The most recent example occurred this year when a fire started in Numurkah where trees growing on land had not been cleared and pushed conductors together causing them to clash. Sparks from the clashing fell to the ground and resulted in a fire start. Another aspect considered is the climb-ability of trees and safety of tree vegetation workers in urban areas and the potential for electric shock.
Suggested change/requirement		Climate Change is at the forefront of our concerns it is important to embrace the concept of an urban forest whether that be in large cities or small country communities. It has been my observation that some of the Power Distribution Companies show little regard for the amenity provided by trees in our communities despite the changes made in the current code where they are required to prune to the Australian Standard 4373.	The primary purpose of the ELC regulations is to ensure the separation between powerlines and trees is safe and maintained. ESV recognises that key responsible persons may have a major interest in the powerlines or the trees, depending on their responsibilities. As the owners and operators of electric lines may cut trees well, or less well, so may those planting trees under powerlines select smaller or larger species of trees. ESV is committed to partnering with the ELCCC, and potentially other stakeholders, to develop and disseminate educational material with regards to appropriate tree planting and management near electric lines.
Suggested change/requirement		Many of their workers have no idea what AS4373 is. They have a policy of cutting to previous cuts which does not allow for any improvement in amenity. I do not believe changes to be included in the 2020 regulations will change this practice.	Electricity business (MEC) vegetation workers are required to meet specific training requirements before they are authorised to work for the MEC (http://www.vesi.com.au/index.php/skills-training). This includes training in areas relevant to meeting, as far as practicable, the principles of AS 4373. Notification and consultation requirements are included in the regulations to assist in the prevention of over pruning. All stakeholders (electricity businesses, councils and the community) have responsibilities with respect to safe and reliable electricity supplies and amenity and value for tree populations.
Suggested change/requirement	Central Victorian Greenhouse Alliance	Concerns about the impact of the Regulations on the existing tree assets of councils across the region. Already witnessing mass removal of structural branches and entire mature trees across the state. Urban forest and canopy cover that experts, governments and communities increasingly recognise as critical to mitigating impact of climate change and improving health and liveability may become impossible to achieve. Severe tree pruning's (within Powercor network) are affecting trees overall health, increasing mortality rates and ability to provide environmental services to the community (shade, cooling, amenity)	ESV recognises the community values and needs reliable electricity supply and trees. The Regulations and Code intend to enable safe and reliable electricity supply and a viable tree population. ESV encourages cooperation between the responsible persons and key stakeholders to achieve improved outcomes, including appropriate cutting and removal practices for vegetation and suitable tree plantings.
Suggested change/requirement	Green Triangle Forest Products Hancock Victorian Plantations (HVP) Victorian Association Forest Industries (VAFI)	1. Supports Option 2 to remake the current regulations but with targeted changes to improve the effectiveness and efficiency of the regulations 2. GTFP urges ESV to strengthen its audit and inspection activities of these regulations 3. GTFP supports the decision to make no change to the current requirements in the regulations for timber plantations 4. GTFP urges ESV to work with DELWP to amend the Code of Practice for Timber Production to ensure there is no confusion over responsibilities	Noted. ESV has increased its resource by 600% since 2016 to better administer the ELC Regulations. ESV has requested that it be consulted with regard to amendment of the Code of Practice for Timber Production when the Code is updated.
RIS - 2.2.2.1 Fires	Jemena	For Jemena the statistics show that approximately 50% of tree related fires are due to grow-ins and the other 50% are due to fall-ins. All of the fire starts from grow-ins are from trees for which Jemena is not responsible. While Jemena’s performance in preventing grow-ins is sufficiently specified and governed by regulation there are no provisions in the regulations to address the risk associated with fire starts from vegetation fall-ins (100% of tree related fires for which JEN has ELC responsibility), other than hazard trees. Provision needs to be made in the ELC Regulations to help MECs minimise the risk of fire starts, and other undesirable consequences, from fall-in vegetation. This provision might require the responsible person to identify, and remove, tree defects in the fall zone. For example, deadwood in the canopy of a tree in the fall zone. JEN Recommendation: Introduce a new provision for the fall zone to be assessed for defects and for these defects when identified to be removed.	Noted
	CitiPower/Powercor	The RIS makes reference to approximately 6% of fires caused by tree contacts are due to grow–ins and that the ELC Regulations, as part of a broader regulatory framework, have been effective in reducing the risk of fires caused by contact between trees and powerlines. The remaining 94% of fires caused by tree contacts are due to fall-ins, i.e. trees falling across powerlines from outside the minimum clearance space. The RIS acknowledges that only *grow-ins* are relevant to the ELC Regulations and the RIS. It is recommended that the mitigation of fall-in incidents should continue to be discussed at the Electric Line Clearance Consultative Committee (ELCCC), particularly for high consequence fire areas.	Noted
	United Energy	About 6% of the fires caused by tree contact are due to vegetation grow-ins. Weather and other factors outside United Energy's control influence the number and impact fire starts to a significant degree. Trees from outside the ***minimum clearance space*** were responsible for 94% of the fires caused.	Noted
2.2.2.3 Power outages	Municipal Association of Victoria (MAV)	Outage and conductor down data The RIS references incident data that councils have not previously seen. The regulations should require distribution businesses and / or ESV to provide vegetation-related outage and conductor down data to the relevant responsible person as soon as possible after the incident. This will assist councils to identify and manage potentially problematic vegetation and to better understand what, if any, risks their vegetation management practices pose to the electricity network. Importantly, if provided in a timely manner, it would also enable councils to interrogate the integrity of the data. Councils report that there have been numerous instances where outages have been blamed on council trees where the tree was actually on private land or was compliant with the regulations. RECOMMENDATION: that the regulations require distribution businesses and / or ESV to provide vegetation-related outage and conductor down data to the relevant responsible person as soon as possible after the incident.	Not accepted. There is no clear authority in the Act and under the objectives of these Regulations to mandate the disclosure or sharing of electricity outage information.
Use of fire starts as metric	Groundline Engineering	Noted that use of fire starts as metric in RIS inappropriate given wide variance in climate conditions from year to year. RECOMMENDATION: Management of higher consequence risks is required particularly with regard to potential loss during these events	Noted. ESV is monitoring fire start trends over time, and accepts the observations with respect to weather variability from year-to-year.
Royal Commissions		Various Royal Commission recommendations have not been fulfilled, therefore many of the assumptions previously relied upon are simply not valid with respect to safety, community expectations and reliability. Recent events and failure of industry/government to implement intent of the recommendations demonstrate need for effective regulations.	Noted. ESV has implemented the recommendations made in the final report of the 2009 Victorian Bushfires Royal Commission. The Victorian Government appointed an independent Bushfire Royal Commission Implementation Monitor (BRCIM), and in 2014 the Inspector-General for Emergency Management assumed responsibility for monitoring and reporting on recommendations (still under implementation).
Climate Change		Increasing threat from climate change is not adequately addressed. The recent events of this summer demonstrate good powerline vegetation management is vital to stop widespread destruction and loss of amenity and environmental values regulations seek to protect.	Noted. Separation between trees and powerlines is essential to maintain community safety, and ESV recognises the the community requires reliable electricity supply and values the amenity provided by trees. There are other elements of the electricity safety framework in which threats to electricity assets, such as climate change, are more directly addressed.
Regulations as 'safe harbour'		Regulations are used a 'safe harbour' provision and need sufficient rigour as to clearance requirements and teeth to ensure risks eliminated or manages as far as reasonably practicable. It needs to be pointed out in strongest possible terms that vegetation contact with powerlines is dangerous, particularly on days of high bushfire risk. Such fire starts cause deaths, extensive loss of property, livelihood and damage to amenity values and the environment. Regional and rural Victoria is one of the most bushfire prone environments in the world.	Accepted.
LIDAR		Increased reliance on LIDAR requires care to ensure that clearances do not become inadequate. RECOMMENDATION: There is analysis and audit, not so much of the technology, but of the underlying data used.	Noted. ESV recognises the change of inspection regimes to include the use of LIDAR requires new skillsets and considerations. ESV has been actively informing itself about LIDAR, and the risks and benefits of its use by responsible persons.
Approach of regulator - compliance		Whilst regulations are not intended to capture all eventualities, a ten-thousand-fold increase in risk on the worst days needs to be considered and the regulators role should be to; 1. Ensure Compliance to the Regulations 2. Review the regulations as being fit for purpose and meeting community expectations.	Noted. ESV has increased its resource by 600% since 2016 to better administer the ELC Regulations. ESV accepts that part of its role is to enforce compliance with the Code of Practice and, as required by the Act, to periodically review the Code and the ELC Regulations.