energysafe VICTORIA

Creating a safer state with electricity and gas

Consultation Paper

Proposed Electricity Safety (Management) Regulations 2019

Comments invited by COB 26 September 2019

VICTORIA State Government

Issued: September 2019

Contents

Appendices

1. Summary

1.1. Legislation and current Regulations

The *Electricity Safety Act 1997* ('the Act') provides for the safety of electrical generation, transmission and distribution, the safety standards of electrical work, prevention and mitigation of bushfire danger, protection of underground and underwater structures from corrosion caused by stray electrical currents, and awareness of electrical safety requirements.

The Act requires Major Electricity Companies (MECs) to submit an Electricity Safety Management Scheme (ESMS) to Energy Safe Victoria (ESV) for its consideration and acceptance. The Act imposes specific duties on MECs in relation to electrical safety, and an ESMS establishes a mechanism by which an MEC states how it will meet those duties in a way that is efficient for it given the unique characteristics of their network. ESMSs also describe how MECs will comply with regulations and prescribed safety standards in a way that is efficient given the unique characteristics of their network.

The Act also allows employers of electrical workers, occupiers of specified premises and owners of complex electrical installations to operate electrical installations or conduct electrical work under a tailored safety management approach that suits their business, by seeking exemptions from prescriptive requirements that they would otherwise be required to comply with. These are known as a 'voluntary ESMS' as the decision to apply for one is optional.

The Electricity Safety (Management) Regulations 2009 (the current Regulations) specify the form and content that is required to be included in either type of ESMS when submitted for acceptance.

There are currently eight MECs who are required to have an ESMS, and 20 voluntary ESMS holders. The number of voluntary ESMS holders has remained largely unchanged since the scheme was implemented in 2009, and is not expected to notably change. While there are theoretically thousands of entities that could apply for a voluntary ESMS, a much smaller number of entities would find the benefits outweigh the additional compliance costs.

The specific requirements for the information to be included in an ESMS are set out in the current Regulations.

The Electricity Safety (Management) Regulations 2019 (the proposed Regulations - see **Appendix 1**) discussed in this paper are proposed to replace the current Regulations that expire on 8 December 2019.

1.2. Nature of proposed Regulations

The proposed Regulations, with limited changes, maintain the requirements of the current Regulations. As such, they continue to strike an appropriate balance between prescription and flexibility in the way that MECs and certain other entities manage risks to achieve safety outcomes.

The proposed changes (detailed at **Appendix 2)** are limited and address minor issues with the application of the current Regulations.

The proposed changes were identified following preliminary stakeholder consultation during 2018, policy review of the current Regulations, and a review of the recommendations in the *Interim Report* of the *Review of Victoria's Electricity and Gas Network Safety Framework*. It was supported by an internal review of legislative arrangements in other jurisdictions, and an independent assessment of the costs of the proposed changes (**Appendix 3**). The proposed changes reflect ESV's view that they support the safety outcomes required of the Act by:

- Clarifying how ESMSs submitted by MECs that comply with the current Regulations, based predominantly on Australian Standard AS 5577, meet the general duties under section 98 of the Act;
- Clarifying the information required for the reporting of serious electrical incidents by MECs;

To ensure consistency with government administration, they also;

- Introduce fees for voluntary ESMSs submitted under sections 114, 115 and 116 of the Act in accordance with the government's cost recovery guidelines; and
- Incorporate other minor administrative changes.

The costs of the proposed changes were subject to independent analysis (see **Appendix 3**) by Regulatory Impact Solutions Pty Ltd (RIS Pty Ltd) that found that the impact of the changes on those it affects is minor, if not indistinguishable from the current Regulations, or costs arising directly from the Act. The analysis did not reveal any objections concerning the proposed changes or the proposed fees for voluntary ESMSs, and provided other minor comments which have informed this paper.

While the cost could not be accurately determined, the analysis identified the full cost of preparing an ESMS - which is similar to applying a base case of 'no regulations' – and used this to test for discernible cost differences between the current and proposed Regulations. The costs of the proposed Regulations are indistinguishable from the current costs, which arise largely from the Act.

The analysis estimates that the assessed costs of the proposed Regulations is $1.05m per annum, of which only $0.3m can be attributed as new costs due to the proposed introduction of fees.

1.3. How to make a submission

Energy Safe Victoria (ESV) invites written submissions on the proposed Regulations by no later than close of business on **Thursday, 26 September 2019**.

Submissions should be addressed to:

Neil Jenkins
Senior Policy Officer
Energy Safe Victoria
PO Box 262,
Collins St West, VIC 8007

Or send by email to: inforegulations@energysafe.vic.gov.au.

For more information, contact Neil Jenkins on (03) 9674 6300.

1.3.1. Further information on submissions

Submissions will be considered in finalising the proposed Regulations, which will be remade in late 2019.

Please note that in ESV will make submissions to this Consultation Paper publicly available. Should you wish for any parts of your submission to remain confidential please clearly indicate the sections of the submission and reasoning for the request.

ESV will determine whether or not to withhold or publish the submission following consultation with you.

Key terms

the Act	*Electricity Safety Act 1998*
current Regulations	Electricity Safety (Management) Regulations 2009
ESMS	Electricity Safety Management Scheme
ESV	Energy Safe Victoria
FSA	Formal Safety Assessment
IGA	Inter-Governmental Agreement
MEC	Major Electricity Company
proposed Regulations	Electricity Safety (Management) Regulations 2019 *(Appendix 1)*
RIS	Regulatory Impact Statement
SMS	Safety Management System

2. Background

2.1. Electricity safety in Victoria

Electricity is supplied to over 2.7 million Victorian homes and businesses.

Electricity is an essential service for industry and the community. It is safe when the risks that arise from the generation, supply, and use of electricity are anticipated and appropriately controlled.

The *Electricity Safety Act 1998* ('the Act'), and associated regulations impose specific duties on major electricity companies (MECs) in relation to electrical safety, and include several mechanisms that allow Energy Safe Victoria (ESV) to be reasonably assured that they will meet those duties.

Key elements of the Act require MECs to submit an Electricity Safety Management Scheme (ESMS) for each supply network to be reviewed and approved by ESV. Employers of electrical workers and owners/operators of industrial premises and complex electrical installations are also able to submit an ESMS on a voluntary basis.

2.1.1. Reported fatalities and hospitalisations

One measure of regulatory effectiveness is the value of the ESMS regime to improving community safety outcomes.

In relation to supply networks, between October 2015 and April 2019, there were 16 fatalities reported to ESV involving:

- Seven fatalities resulting from vehicle collisions with power poles;
- One from a tip truck contacting overhead lines;
- One involving an aircraft crashing after contacting a 22kv powerline;
- Two accidental contacts involving clearing of vegetation by a landowner and a council worker on separate occasions;
- Four fatalities beyond the points of supply (e.g. accidents within electrical installations); and
- One fatality due to a member of the public cutting a service line to an installation with bolt cutters.

None of these fatalities involved circumstances which appeared to have been outside the reasonable ability of the MECs to prevent, which means that it was not practicable for MECs to prevent them from occurring.

During the same period, there were 39 reported injuries requiring hospitalisation. Of these, three involved asset failures, four involved MEC workers failing to follow proper work practices, and the remaining 32 were also outside the ability of the MECs to prevent.

The absence of fatalities and low number of hospitalisations from events which were within the reasonable control of the MECs suggests that ESMSs help provide safe outcomes.

Those hospitalisations which were within the control of the MECs, involved asset failures which may have been difficult to predict, but may have been risks that may have been able to be managed with long term asset management strategies. This is why ESV has an interest in long term asset management as a way of ensuring electrical safety in the longer term.

2.2. Regulation remaking process

ESV is the independent technical regulator responsible for electricity, gas and pipeline safety in Victoria. ESV administers the Act, which provides for the safety of electrical generation, transmission and distribution, safety standards of electrical work, prevention and mitigation of bushfire danger,

protection of underground and underwater structures from corrosion caused by stray electrical currents, and awareness of electrical safety requirements.

Regulations – statutory rules made under the authority of the Act – automatically expire after ten years. The *Electricity Safety (Management) Regulations 2009* (the current Regulations) will expire on 8 December 2019, and new regulations are needed to replace them (the proposed Regulations). As the responsible regulator, ESV is leading the remaking process in consultation with the Department of Environment, Land, Water and Planning.

The remaking process provides an opportunity to determine whether regulations are still needed and, if so, whether there are ways to improve them. Before new regulations are made, the *Subordinate Legislation Act 1994* and associated guidance material requires that most regulations follow the process outlined in Figure 1.

Figure 1: Regulation review process

The development of the consultation process may involve the creation of a Regulatory Impact Statement (RIS), which is a consultation document that meets certain legal requirements, including the measurement of whether the proposed changes will impose a significant economic burden on a sector of the community.

A RIS is required if the impact of the burden exceeds the Government's threshold for materiality, which is $2m per annum. If the impact is estimated to be less than that amount, the Minister for Energy, Environment and Climate Change may issue an exemption certificate which would remove the requirement for a RIS. However, Government guidelines still require that effective consultation takes place.

ESV conducted preliminary analysis of the likely costs and benefits of the proposed Regulations in 2018. In the first half of 2019, ESV consulted with parties likely to be directly affected by the proposed Regulations, through requesting submissions in response to an issues paper released at that time.

This consultation paper outlines the policy issues arising from the current Regulations and provides a high-level cost–benefit analysis of the proposed Regulations. Stakeholders are invited to make submissions to ESV by close of business on **Thursday, 26 September 2019**.

Following consideration of all submissions received in response to the proposed Regulations, ESV will propose new regulations to Government for remaking.

2.3. What is an ESMS?

An ESMS is a documented and evidenced argument, made by a regulated entity to the regulator, which proposes how specified safety outcomes established in the Act as 'general duties' will be achieved through a combination of technical and management system measures and risk controls.

Entities seeking acceptance of their ESMSs must specify the systems that they will follow to address substantial and diverse risks, and the systems they will follow to ensure they have sufficient capability to effectively assess risks and develop tailored solutions to mitigate risks under their control. This outcome-focussed and process-based approach to regulation is consistent with the principles of better practice regulatory design.

The specific requirements on what information an ESMS must include are set out in the current Regulations.

An ESMS typically takes the form of a collection of documents that set out the identification of all safety risks to the community arising from electricity, an assessment of those risks, details of all measures to control those risks, and specification of monitoring, management, record keeping and review arrangements.

The current Regulations require an ESMS to include a Safety Management System (SMS). An SMS must include the information specified in Divisions 2 and 3 of the proposed Regulations, including specifying how it will ensure safety in relation to the proposed arrangement as well as the reporting of electricity incidents, emergency preparedness, and competence and training of staff.

For MECs, the requirement to have an ESMS is compulsory, and the form of the SMS is prescribed through compliance with Australian Standard 5577 (AS 5577).

In addition to addressing the hazards and risks supply networks can create for persons and property, ESMSs for MECs must also specify how they minimise the risks of bushfire danger arising from their supply networks. The form this is to take is set out in other regulations, being the Electricity Safety (Bushfire Mitigation) Regulations 2013, which are due to be remade in 2023.

The Act also allows employers of electrical workers, occupiers of specified premises and owners of complex electrical installations to operate electrical installations or conduct electrical work under a tailored safety management approach that achieves the same or better safety outcomes than if they complied with prescribed requirements. These are known as 'voluntary ESMSs' as the decision to apply for one is optional.

There are currently eight MECs who are required to have ESMSs, and 20 holders of voluntary ESMSs (19 under section 115 and 1 under section 114). The number of voluntary ESMSs is largely unchanged since the scheme was implemented in 2009, and is not expected to notably change.

There are theoretically thousands of entities that could apply for a voluntary ESMS. However in practice, only a small number of entities would find the benefits outweigh the additional compliance costs. The potential number of voluntary ESMSs holders is therefore difficult to accurately determine, because the commercial value of operating under an ESMS is unique the circumstances of each business.

2.4. Policy framework and legislative context

2.4.1. The role of the Act and the regulations

The Act sets the basis for the management of safety risks arising from electricity through an ESMS.

The regulations are intended to provide certainty to industry on what is required to achieve safety, while providing confidence to the community that safety standards and protections are clearly described. They do this by requiring information on how ESMSs will ensure safety outcomes to the standard required by the general duties under section 98 for MECs, and 120D, 120E and 120F for holders of voluntary ESMSs.

2.4.2. Major electricity companies

The Act establishes that MECs must meet the general duties specified in the Act through an ESMS that is accepted by ESV.

The Act requires that ESMSs for MECs:

- Address how the MEC will minimise, as far as practicable, risks to persons, property and bushfire dangers;
- Contain a SMS which must set out certain matters including how the MEC will meet the general duty under section 98 of the Act; and
- Include a plan for the mitigation of bushfire danger in relation to the supply network.

The Act also allows ESV to require the ESMS to be independently validated.

A MEC cannot commission or begin operating a supply network until an ESMS for that network has been accepted (or provisionally accepted) by ESV. MECs have the responsibility for implementing the measures necessary to minimise risks. The regulations specify the *type* and *extent* of information necessary to allow ESV to determine if the proposed safety management approach is appropriate.

ESV must accept an ESMS if it is satisfied that it is appropriate for the supply network to which it applies and complies with the Act and any associated regulations.

A MEC must comply with the accepted ESMS for a supply network in relation to the management and operation, removal, dismantling or decommissioning of the supply network. An ESMS must be updated and resubmitted for approval if requested by ESV, under conditions described in the Act, or otherwise no later than five years since the last accepted ESMS.

2.4.3. Other entities – holders of voluntary ESMSs

The Act allows employers of electrical workers, occupiers of specified premises and owners of complex electrical installations, to submit an ESMS case to apply to their respective arrangements under sections 114, 115 and 116.

Regulations applying to ESMSs submitted under those sections require the development of:

- A Formal Safety Assessment (FSA) which describes the methodology and risks to be managed to the standard required; and
- A SMS which explains how the ESMS will be implemented.

The regulations are based on the concept that an entity submitting an ESMS under these sections will explain how risks are managed to meet the required general duty (either under sections 120D, 120E or 120F of the Act, depending on the entity – see **Appendix 4**). This is because like MECs, the entity may be considered to be best placed to understand and manage the risks, as well as understand the costs of doing so. It also reflects the fact that the entity must accept ultimate accountability for managing the risks for which it is responsible.

3. Problem analysis

The proposed changes were identified following stakeholder consultation during 2018, a policy review of the current Regulations, and a review of the recommendations in the Interim Report of the Review of Victoria's Electricity and Gas Network Safety Framework. The policy review was supported by an internal review of legislative arrangements in other jurisdictions (including Comcare, NOPSEMA, WorkSafe Victoria, WorkSafe NZ and HSE USK) during the making of the Gas Safety (Safety Case) Regulations 2018. Ann independent assessment of the costs of the proposed changes (Appendix 3) was conducted with stakeholder input during 2019.

ESV has identified areas within the current Regulations that can be improved, in particular the opportunity to address:

For MECS:	• Uncertainty as to how a MEC ESMS – as prescribed in the current regulations - meet the general duties in section 98 of the Act • A lack of clarity over the reporting of serious electrical incidents to ESV, and some misalignment with current requirements.
For other entities:	• Increasing costs incurred by ESV in monitoring the voluntary ESMSs of high risk installations and premises.

The proposed changes reflect ESV's view that they support the safety outcomes required of the Act by:

- Clarifying how ESMSs submitted by MECs that comply with the current Regulations, based predominantly on Australian Standard AS 5577, meet the general duties under section 98 of the Act;
- Clarifying the information required for the reporting of serious electrical incidents by MECs;

To ensure consistency with government administration, they also;

- Introduce fees for voluntary ESMSs submitted under sections 114, 115 and 116 of the Act in accordance with the government's cost recovery guidelines; and
- Incorporate other minor administrative changes.

3.1. Prior consultation

In March 2019, ESV released an 'issues paper' to approximately 200 stakeholders which covered a number of the issues. These stakeholders included the eight MECs, 20 holders of voluntary ESMSs, and other entities who could submit voluntary ESMSs, such as owners of complex electrical installations.

Seven responses to the paper were received. The table below sets out the feedback received, and ESV's response the issues. This has been used to inform this paper, including the options described in section 4 of this paper.

This Consultation Paper provides stakeholders with an opportunity to consider the proposed options in more detail, with the benefit of reviewing the draft proposed Regulations to respond to them.

Table 1: Responses to 'issues paper'

Type of issue	Issue raised	General industry feedback	ESV response
Content of ESMSs	OH&S	SMSs should cover health and fitness, fatigue management etc.	These matters and regulatory requirements are dealt with under Victorian OH&S legislation. Changes to the current Regulations are not needed.
	Third parties	SMSs should cover procurement relating to, for example, sub-contracting.	MECs are responsible for contractors' compliance with ESMSs. Acceptable ESMSs would include content that explains how this is met. Changes to the current Regulations are not proposed.
	Worker competencies	This should be covered by the regulations.	This forms part of compliance with AS5577 for MECs. Changes to the current Regulations are not proposed.
	Use of an integrated management standard	Contents of ESMSs could align with integrated management systems standard PAS99.	That goes beyond the scope of what is intended by the Act. MECs are not required to comply with this but may adopt it if it has value to them. Changes to the current Regulations are not proposed.
Clarification	Guidance on complying with the Act	ESV should provide comprehensive guidance material on ESMSs and on what needs to be reported under regulations 27 and 28.	**ESMSs:** ESV will revise existing guidelines in line with the draft ESMS acceptance policy and guidelines. This will be consulted on and published when the proposed Regulations are remade. It is intended the policy will be merged with a similar policy covering the acceptance of gas safety cases, which share common characteristics. **Reporting:** ESV will clarify reporting requirements in the proposed Regulations and through revised guidance to be published when the proposed Regulations take effect.
	Terminology	ESV should clarify *'as far as practicable'* vs *'as low as reasonably practicable',* and *'electricity safety management scheme'* vs *'safety case'*	This will be addressed in ESMS policy and guidelines to be published when the proposed Regulations take effect.

Type of issue	Issue raised	General industry feedback	ESV response
Compliance	Strict application of AS5577	AS5577 requires network operators to identify published technical standards it will comply with. More flexibility is preferred.	AS5577 must be retained, as it is part of a national agreement. How the standard is to be applied, and issues that may arise from adoption of a national standard within Victoria, will be consulted on further in the remaking of the regulations, through consultation on policy and guidelines. The policy and guidelines are supplementary to the regulations and will be published at the same time as the regulations come into effect
	Complying with AS5577 and the Act at the same time.	The regulations are not clear about the relationship between section 98 and AS5577	The proposed regulations clarify the relationship between ESMSs that comply with AS5577 and the general duties in the Act. This will also be included in policy and guidance following the making of new regulations. The policy and guidelines are supplementary to the regulations and will be published at the same time as the regulations come into effect
	Multiple compliance documents	ESMSs, Bushfire Mitigation Plans, Electric Line Clearance Plans could be consolidated into one document	The requirements for ESMSs, Bushfire Mitigation Plans, and Electric Line Clearance Plans were developed at different times and for different purposes. They also require different approvals and acceptances under the Act, and are accepted for different durations (ELCCC plans are for one year). Aligning these requirements would require a rewrite of the Act which is beyond the scope of this regulation remaking process.

3.2. Uncertainty as to how MECs meet the general duties in section 98 of the Act

In 2013, the provisions in the current Regulations relating to the form of ESMSs (for MECs) were changed when AS 5577 was adopted into the regulations, following an Inter-Governmental Agreement (IGA). These amendments removed the majority of regulations that specified the form of a mandatory ESMS, and instead substituted a single regulation requiring the application of AS 5577.

AS 5577 is a generic national standard for management systems, which, for Victoria, did not completely address the requirements arising from the outcome based form of regulation required under the Act[1].

ESV's experience has since shown that sole reliance on AS 5577 as a mechanism to manage risk in isolation to the Act has reduced clarity in the current Regulations as to how MECs should develop an ESMS that specifies how they meet their general duties under section 98 of the Act.

This lack of clarity has led to uncertainty and extended submission and assessment processes, which have served to increase the burden on both ESV and MECs.

This has meant that in practice, an ESMS may comply with AS 5577 but not meet the duties outlined in the Act; an ESMS that did this would not be acceptable to ESV. This is because relying solely on AS 5577 without specifically addressing how an MEC will meet its general duty under section 98, offers an incomplete picture of an MEC's risk minimisation approach.

To address this disconnect, ESV has found it necessary in recent years to implement an additional comprehensive 'safety case' endorsement process as a precursor to the development of an acceptable ESMS. This has effectively added a further layer of administrative burden by extending submission cycles and assessment timeframes.

The lack of clarity in the current Regulations and creation of administrative processes to address that deficiency has made the commitments being made by MECs to achieve the requirements of the Act less clear. This has also made it more difficult for ESV to take enforcement action when necessary, and limited the clarity that the Australian Energy Regulator needs to accurately determine the funding needed to ensure networks remain safe and reliable.

ESV is of the view that providing clarification in the regulations, coupled with clear policy and guidance, will remove the need to produce and submit an electricity 'safety case' for endorsement prior to producing an ESMS, and the number of iterations submitted to ESV for acceptance.

3.3. Lack of clarity for MEC serious electrical incident reporting requirements

Under the Act, a MEC must report to ESV any serious electrical incident which occurs in relation to the supply network of that MEC. A MEC must also report to ESV any serious electrical incident in relation to an electricity installation to which it supplies electricity.

Reporting of serious electrical incidents is one means by which ESV determines whether the ESMS is being followed, or whether the arrangements and risk control measures documented in the ESMS remain appropriate. ESV may also use this information to identify trends at the industry or sector levels. The information is therefore necessary to enable ESV to perform its functions as regulator, and to address safety issues and trends.

The Act does not specify how reporting of serious incidents should occur, when it should occur, and what information needs to be reported. However, the Act states that incident reporting must occur in accordance with the current Regulations.

The current Regulations state, and have been interpreted by ESV in published guidance, to mean:

- Certain classes of incidents are of greater interest to ESV, and therefore must be notified promptly to ESV;

[1] Unlike other states, Victoria's energy safety regime is outcome-based. Other jurisdictions do not have equivalent general duties. For example, Queensland does not call up AS 5577 in its regulatory framework; NSW requires the SMS to comply with AS 5577 to achieve safety objectives set out in regulations but does not set a standard for those objectives; South Australia calls up AS 5577 for network operators (and generators) but does not apply it in a way which would achieve an equivalent standard to that stated in the *Electricity Safety Act 1998*; and Western Australia calls up AS 5577 for network operators but like South Australia does not apply it to the a standard equivalent to the Act.

- Serious incidents must be reported to ESV in writing, and those reports must contain certain details to enable ESV to understand the incident, what has been done to remediate the incident, and what has been done to prevent recurrence;
- All other incidents must be summarised to ESV through a quarterly data submission, so that ESV is able to monitor incident trends; and
- ESV must be provided with specified information and data on incidents so as to be able to fulfil key objectives, such as assessing and identifying incident trends, monitoring MEC risk management performance and compliance, and identifying trends and other matters across Victoria.

While currently the MECs comply with ESV's interpretation and provide notifications, reports and data as required, the requirements in the current Regulations are less clear, and in the case of regulation 28, appear to be requiring data which is not required under the Act nor is of any value to ESV in determining safety outcomes. Events reported to ESV under regulation 28 of the current Regulations[2] are largely serious electrical incidents that should be reported under the current regulation 27.

The obligations in the Act apply to any serious electrical incident, which means any incident involving electricity which causes, or has the 'potential to cause', the death of or injury to a person, significant damage to property, or a serious risk to public safety. The use of the word 'potential' means the obligation of whether or not to report an incident has been open to interpretation, resulting in incidents which should have been reported to ESV, not being reported.

Requiring all incidents to be reported as they occurred would place a heavy reporting burden on MECs. On the other hand, serious electrical incidents should be reported as soon as possible to allow ESV to ensure that remedial action to treat any outstanding risk has occurred, and to determine whether or not further incidents are likely.

The current Regulations do not support the ability of ESV to monitor serious electrical incidents or provide it with sufficient information to assess their implications. Incidents that may be of interest to ESV and other stakeholders may be reported with insufficient information (e.g. as a statistical summary). The application of the current Regulations is also open to differences of opinion over which incidents must be reported.

3.4. Increasing costs incurred by ESV in monitoring voluntary ESMSs

While the number of voluntary ESMSs has remained largely static over the past 10 years ESV has had to invest more effort into monitoring voluntary ESMSs. Recent incidents indicate that the installations and equipment covered by voluntary ESMSs are becoming more hazardous because:

- High-energy electrical equipment is ageing and if not replaced or maintained, may become potentially more dangerous
- Changes in an ageing workforce demographic have led to the loss of safety intellectual property and undocumented safety practices
- There has been inadequate assessment of risks to safety in the redesign and modification of these installations, and
- The fast growing renewables sector is attracting new players using new technologies, but they may be unfamiliar with Victorian safety standards and requirements.

While these demands have grown, entities that have voluntary ESMSs are not liable for the costs incurred by ESV in assessing and monitoring compliance with those ESMSs. This is inconsistent with government cost recovery guidelines.

[2] Regulation 28 requires the reporting of incidents "other than" serious electrical incidents.

A voluntary ESMS provides a commercial benefit to the applicant. However, a benefit without cost (fees) does not encourage compliance with the voluntary ESMS regime.

Previous consultations with entities operating under voluntary gas safety cases during the making of the Gas Safety (Safety Case) Regulations 2018 indicated that voluntary ESMSs are a valuable and important means of obtaining management support and resources from within the organisation, and that fees assist in establishing the credibility and importance of complying with the voluntary ESMS requirements.

ESV believes it is appropriate to introduce fees that reflect the increased level of regulatory effort required to assess and monitor voluntary ESMSs.

3.5. Other minor administrative amendments

During consultations, ESV identified other possible minor amendments which would improve and update the operation of the regulations. They support, for example, the application process by more clearly identifying the entity applying for an ESMS. The amendments, which are self-explanatory, are:

- Updating entities names;
- Clarification of which entities are entitled to submit which types of voluntary ESMSs;
- Clarification of some definitions;
- Specification of ABNs or ACNs to correctly identify the entity seeking the ESMS;
- Removing the requirement to specify a ‘safety policy’ which was often confused with other health and safety policies which have little or no relevance to electrical safety;

4. Feasible options

The proposed Regulations, with changes, maintain the requirements of the current Regulations. As such, they continue to strike an appropriate balance between prescription and flexibility in the way that MECs and certain other entities manage risks to achieve safety outcomes.

The proposed changes (detailed at **Appendix 2)** are limited and address minor issues with the application of the current Regulations.

This section sets out the different options that were considered in reviewing the current Regulations.

4.1. Uncertainty as to how MECs meet the general duties in section 98 of the Act

4.1.1. Summary of problem

The current Regulations call up AS 5577 in a way which does not require MECs to specify how they will meet their duties under the Act in their ESMSs.

This means that ESMSs which fail to make that link make it difficult for ESV to understand what commitments have been made, and to consider enforcement action when a commitment has not been complied with.

4.1.2. Options to address problem

The possible options are laid out in table 2 below:

Table 2: Options analysis – link to general duties for MECs

ID	Option summary	Extent it can be implemented	Extent it addresses problem
1.	No change (i.e. current Regulations would be remade without change).	Easy to implement.	Retaining the regulations in their current form will not address the problem identified or clarify how MECs can meet their general duties under the Act.
2.	Change the prescribed standard (AS 5577) to better reflect the requirements under the Act. Changing the standard may address the problems, provided the changes are agreed to by other jurisdictions.	ESV's recent experience in seeking changes to the Australian Standards governing residual current devices with overcurrent protection is that there was little prospect of satisfactory amendment being achieved in the near term. In this instance, the change Victoria would require would be inconsistent with other jurisdictions' regulatory frameworks, making acceptance of changes to AS 5577 in the near term less likely.	If this option was not supported by the other jurisdictions, then it would not address the problem. Even if it was supported, delays in changing the standard would leave the problem unresolved for that period of time.

ID	Option summary	Extent it can be implemented	Extent it addresses problem
3.	No change to the current Regulations but instead provide additional guidance to MECs as to what is required for an ESMS to meet the requirements of the Act.	ESV has provided guidance to MECs in the past to assist them in developing ESMSs, including an additional 'safety case' process, so therefore this option can be implemented.	In providing additional guidance, ESV has been meeting regularly with MECs during the safety case acceptance process. The process has been lengthy, with a number of safety cases requiring multiple resubmissions. This could lead to an entity continuing to operate under a previous ESMS (if there is one) until a resubmitted one has been accepted. This would be undesirable if the existing ESMS fails to address current risks. Additionally, guidelines themselves have no explicit legal effect, which means MECs are not required to comply with them, extending the problem. This option will not resolve the problem.
4.	Change the regulations to clarify: • That 'as far as practical' decisions based on the output of a FSA are to satisfy section 98. • SMS integration that satisfies s. 99(2)(b)(ii) • Asset management objectives/commitments that satisfy section 98.	These would be changes to the current Regulations which can be easily implemented.	The changes would provide clarity on meeting the general duties in section 98, and be analogous to: • Changes made to the new gas safety case regulations • Regulations 13 and 18 of the current management regulations for voluntary ESMSs. These changes would address the problem without introducing new requirements. This would mean that MECs would no longer need to produce and submit a 'safety case', which will reduce administrative burden on them. **This is the preferred option.**

The proposed new regulation 11 will specify what the asset management must contain, while proposed new regulation 26 will provide the linkages back to the general duties in the Act.

The proposed Regulation 11 reads:

11 Scheme description—major electricity companies and asset operators

(1) An ESMS submitted by an MEC or asset operator must contain a description of the design, construction, operation and maintenance of the supply network or complex electrical installation to which the scheme relates.

(*2) The description must provide sufficient information to enable Energy Safe Victoria to identify the location, extent and scope of every supply network or complex electrical installation to which the ESMS relates and to assess the risks associated with the safety of the supply network or complex electrical installation.*

The proposed regulation 26 reads:

26 Safety management system—MEC

For the purposes of section 99(2)(b) of the Act, the ESMS for a supply network of an MEC must specify a safety management system that –

(a) complies with AS 5577 and contains a description of the technical and other measures undertaken or to be undertaken to minimise, as far as practicable, the risks identified in the formal safety assessment carried out in accordance with that standard; and

(b) specifies the means by which the MEC will monitor and maintain the integrity of the supply network taking into account the expected operational life of the network; and

(c) explains how the measures described in paragraph (a) and the means specified in paragraph (b) will enable the MEC to meet its duties under section 98 of the Act.

4.2. Lack of clarity for MEC serious electrical incident reporting requirements

4.2.1. Summary of problem

The Act requires that MECs report serious electrical incidents. The current Regulations provide insufficient clarity to MECs as to what information should be reported to ESV, which may be necessary for the effective administration of the regulatory framework and monitoring of safety outcomes. ESV does not have access to the data and information required to deliver on its functions as required under the Act.

4.2.2. Options to address problem

The possible options are laid out in table 3 below:

Table 3: Options analysis – reporting of serious electrical incidents

ID	Option summary	Extent it can be implemented	Extent it addresses problem
1.	No change (i.e. current Regulations would be remade without change).	Easy to implement.	Retaining the regulations in their current form will not address the problem identified or achieve the objectives of the Act.
2.	Change the current Regulations to clarify the information required, timeframes and means for reporting electrical incidents. This change is necessary to support ESV's reporting requirements.	The proposed changes would better align with what ESV requires to understand and monitor incident causes and trends. These would be changes to the current Regulations which can be easily implemented.	These changes would address the problem of incomplete reporting. The change will also provide data which will better enable ESV to identify and address trends, and ensure it has the correct information on which it can base further investigation or enforcement action. **This is the preferred option.**

The proposed Regulation 28 (replaces current regulation 27) and proposed Regulation 29 (replaces current regulation 28) will clarify when and how serious electrical incidents are to be reported, and better align with current practice.

The proposed regulations will read:

28 Requirements for reporting of serious electrical incidents by major electricity companies

(1) For the purposes of section 142(1) and (2) of the Act, an electricity supplier that is an MEC must, if this regulation applies –

(a) notify Energy Safe Victoria of a serious electrical incident as soon as practicable as specified in reporting guidelines issued by Energy Safe Victoria from time to time; and

(b) provide Energy Safe Victoria with a report of the incident in accordance with the reporting guidelines.

(2) This regulation applies if a serious electrical incident –

(a) caused the death of or injury to a person; or

(b) caused significant property damage; or

(c) caused significant disruption to the community; or

(d) involved an electric line with a nominal voltage of more than 66 000 volts; or

(e) involved an imminent risk of electrocution; or

(f) involved a fire originating from the MEC's supply network; or

(g) involved any of the following –

(i) an explosive failure of an asset; or

(ii) a reverse polarity; or

(iii) a high voltage injection; or

(iv) a switching operation that inadvertently caused energisation; or

(v) a person coming into contact with an energised network asset; or

(vi) an energised bare conductor that is less than 4.3 metres above the ground; or

(vii) part of the MEC's supply network becoming dislodged from its supporting structure; or

(viii) an uncontrolled release of a live conductor.

29 Reporting of other serious electrical incidents by major electricity companies

(1) This regulation applies to serious electrical incidents other than serious electrical incidents described in regulation 28(1).

(2) For the purposes of section 142(1) and (2) of the Act, an electricity supplier that is an MEC must report to Energy Safe Victoria a serious electrical incident to which this regulation applies in accordance with the reporting guidelines referred to in regulation 28(1).

4.3. Increasing costs incurred by ESV in monitoring voluntary ESMSs

4.3.1. Summary of problem

Entities who have voluntarily entered into ESMSs consider there are clear cost savings in doing so[3]. However there is a cost to ESV in assessing and monitoring voluntary the ESMSs, which is not recovered from those entities. This approach is contrary to government's cost recovery policy. Additionally, providing a benefit without cost is unlikely to encourage compliance with the means and measures for achieving safety outcomes.

4.3.2. Options to address problem

The possible options are laid out in table 4 below:

Table 4: Options analysis – cost recovery for voluntary ESMSs

ID	Option summary	Extent it can be implemented	Extent it addresses problem
1.	No change (i.e. current Regulations would be remade without change).	Easy to implement.	Retaining the regulations in their current form would not align with government policy on cost recovery, or ensure the commitment of entities with voluntary ESMS to manage their risks as required under sections 120D, 120E and 120F.

[3] See commentary page 8, Appendix 3

ID	Option summary	Extent it can be implemented	Extent it addresses problem
2.	Change the regulations to: • Introduce fees for voluntary ESMSs on a partial or full cost recovery basis • Provide a mechanism to waive or rebate fees in specified circumstances.	The head of power to implement this exists, so can be implemented.	The changes will address the problem by providing an incentive for applicants to properly consider their submissions by paying for the costs imposed on ESV. The change is also consistent with the government's cost recovery guidelines. **This is the preferred option.**

The proposed new regulations 30 and 31 will introduce fees that reflect the increased level of regulatory interactions required by ESV to assess and monitor voluntary ESMSs. The fees have been calculated to provide for full cost recovery of the regulatory effort involved.

The proposed regulations read:

30 Annual administration fees

(*1*) *An asset or employer operator must pay an annual fee of 965 fee units to Energy Safe Victoria for considering an ESMS submitted by the asset operator or employer operator and administering the ESMS.*

(2) The fee set out in subregulation (1) is payable on the acceptance of the ESMS and on each anniversary of the acceptance.

31 Waiver or rebate of fees

(1) Energy Safe Victoria may waive or rebate all or part of the fee under regulation 30 if, in the opinion of Energy Safe Victoria—

(a) the consideration of the ESMS would impose or has imposed a lesser burden than usual on Energy Safe Victoria; or

(b) the administration of the ESMS imposes no appreciable burden or a lesser burden than usual on Energy Safe Victoria.

(2) In deciding whether to waive or rebate all or part of a fee under regulation 30, Energy Safe Victoria may have regard to the scheme operator's safety performance and compliance with the accepted ESMS.

The annual fee is $14,291.65, which is based on 965 fee units at $14.81 each (for 2019/20).

5. Impact analysis

5.1. Costing Methodology

Options need to be considered against a reference point called a 'base case'. The base case is generally either no regulations, or the existing regulations.

Consistent with the requirements of the *Victorian Guide to Regulation* published by the Department of Treasury and Finance, the base case for this remaking process is the current Regulations, because:

- The current Regulations were originally created to support legislative change to help MECs address the risk of non-compliance with prescriptive regulations that existed at the time, as ownership of networks transferred from a higher cost base of government ownership to the lower cost base under privatisation. This created an environment where network operators were expected to achieve the three objectives of improving safety, improving affordability and increasing reliability in a commercial environment - simultaneously. Having 'no regulations' would imply a winding back of that policy;
- Having no regulations means that holders of voluntary ESMSs would continue to enjoy the commercial advantages that come with them, without cost.

Appendix 3 is a paper prepared for ESV by RIS Pty Ltd which consulted on and modelled the likely impacts of the proposed Regulations.

In developing the costing approach, it became apparent that identifying the costs against the current regulations was going to be difficult, as entities which have ESMSs could not easily differentiate between cost and burden drivers because:

- Some costs, such as the requirement for MECs to have ESMS, were imposed by the Act rather than the current Regulations
- Some costs are incurred across different regulatory regimes, where SMS and other safety requirements may meet duties and obligations under legislation administered by other regulators; and
- Businesses may have their own safety policies and requirements that require them to implement systems and processes, and conduct processes, that achieve similar or identical safety outcomes to those required under the Act and current Regulations.

While a cost could not be accurately determined, the consultant engaged by ESV identified the full cost of preparing ESMSs - which is similar to applying a base case of 'no regulations' – and used this to test for discernible cost differences between the current and proposed Regulations.

5.2. Determined Cost Impact

The independent assessment conducted by RIS Pty Ltd:

- Involved consultations with four of eight MECs, and five of twenty VESMS holders (the sole section 114 voluntary ESMS holder and four section 115/116 entities);
- Concluded that the cost established for the section 114 voluntary ESMS was biased (overstated because of the nature of the entities operations) and that costs were more likely to be accurately reflected by the costing data gathered for s115 and s116 ESMSs; and
- Was supported by qualitative statements to RIS Pty Ltd by ESMS holders.

It identified the total cost of compliance with the current Regulations is approx. $1.05m per annum, while the incremental cost of the proposed Regulations above the base case is thought by MECs and voluntary ESMS holders to be less than $0.3m per annum.

The only cost which can be directly attributable to the proposed regulations, is the new fees for voluntary ESMSs, which is less than $0.3m per annum, or approximately $14,291 per voluntary ESMS case holder.

The outcome of the consultations with external stakeholders is listed in section 4 of **Appendix 3**. It states that the main themes to emerge from the consultations were that:

- No companies raised any objections concerning the proposed amendments;
- A small number of companies considered that there was some duplication between ESMSs and Safety Case requirements;
- No concerns were raised about the increased specificity in reporting of serious incidents;
- Stakeholders welcomed the greater clarity in drafting and removal of the mention of safety policies, but considered that there was a need to define 'complex electrical installation' in the regulations;
- There are regulatory cost savings from adopting VESMS, but the initial hurdle of applying for a voluntary scheme is unlikely to result in their widespread adoption;
- Companies with ESMSs (especially those on their second or third ESMS) have a good understanding of ESV requirements, but generally reported that the initial application was difficult; and
- No companies with VESMSs raised objections about the proposed fees. In particular, no company considered the amount of the fee was significant in the context of their business operations, and small compared to the value they obtain by using VESMSs. A number of stakeholders also noted that a fee on VESMSs would send a useful signal of value, which would assist in the importance of VESMSs within their organisation.

6. Preferred option

6.1. Summary of preferred option

Based on the information received from stakeholders and the independent analysis of the proposed changes, the preferred option consists of amending and remaking the regulations to achieve the following.

Table 5: Preferred option

Problem being addressed	Proposed solution
Uncertainty as to how MECs meet the general duties in section 98 of the Act	Regulations 11 to specify what an asset management plan must contain. This will support the application of Regulation 26, which will enable ESV to oversee the maintenance of the integrity of the supply network into the future. Regulation 26 to clarify: • That 'as far as practical' decisions based on the output of a FSA are to satisfy ss. 98; and • SMS integration that satisfies s. 99(2)(b)(ii).
Lack of clarity for MEC serious electrical reporting requirements	Regulation 29 clarifies what ESV expects to be notified and then reported as serious electrical incidents by MECs in the way specified. Regulation 30 clarifies that for "other" serious electrical incidents, how those are to be reported.
Increasing costs incurred by ESV in monitoring voluntary ESMSs	Regulation 30 and 31 to introduce; • Fees for voluntary ESMSs to recover regulatory costs; and • A mechanism to waive or rebate fees where ESV is satisfied the ESMS would impose a lesser burden on ESV or that the ESMS imposes no appreciable burden on ESV.
Other minor administrative amendments	Updated regulations give effect to administrative improvements listed below; • Updating entities names; • Clarifying which entities are entitled to submit which types of voluntary ESMSs; • Clarifications of some definitions; • Specification of ABNs or ACNs in applications for acceptance of ESMS to properly identify the entity; • Removing the requirement to specify a 'safety policy' which was often becoming confused with other policies which have little or no relevance to electrical safety;

All changes are reflected in the proposed Regulations at **Appendix 1**.

Appendix 1 Proposed Regulations

Electricity Safety (Management) Regulations

Exposure Draft

TABLE OF PROPOSALS

Victoria

Electricity Safety (Management) Regulations

Exposure Draft

Part 1—Preliminary

1 Objective

The objective of these Regulations is to provide for the requirements, procedures and other matters relating to the acceptance of electricity safety management schemes.

2 Authorising provisions

These Regulations are made under sections 150 and 157 of the **Electricity Safety Act 1998**.

3 Commencement

These Regulations come into operation on 29 November 2019.

4 Revocations

The following Regulations are **revoked**—

(a) the Electricity Safety (Management) Regulations 2009[1];

(b) the Electricity Safety (Management) Amendment Regulations 2013[2].

5 Definitions

In these Regulations—

access authority system has the meaning given by regulation 6;

AS 5577 means Australian Standard AS 5577 Electricity network safety management systems, as published or amended from time to time;

asset operator means an owner of a complex electrical installation who submits an ESMS under section 116 of the Act;

emergency service means the following—

(a) the Chief Commissioner of Police appointed under section 17 of the **Victoria Police Act 2013**;

(b) an ambulance service within the meaning of the **Ambulance Services Act 1986**;

(c) the Country Fire Authority;

(d) the Metropolitan Fire and Emergency Services Board;

(e) the Victoria State Emergency Service Authority established under the **Victoria State Emergency Service Act 2005**;

(f) the Department of Environment, Land, Water and Planning;

employer operator means—

(a) an employer of electrical workers who submits an ESMS under section 114 of the Act; and

(b) an occupier of specified premises who submits an ESMS under section 115 of the Act;

ESMS means electricity safety management scheme;

MEC means a major electricity company;

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

(a) Standards Australia; or

(b) the New Zealand Standards Approval Board established under the Standards and Accreditation Act 2015 of New Zealand; or

(c) the British Standards Institution incorporated by Royal Charter; or

(d) the International Organization for Standardization; or

(e) the International Electrotechnical Commission; or

(f) any standards organisation similar to those set out in paragraphs (a) to (e), that is within or outside Australia and that is approved by Energy Safe Victoria; or

(g) Energy Safe Victoria;

scheme operator means an asset operator, employer operator or MEC;

the Act means the **Electricity Safety Act 1998**.

6 Meaning of *access authority system*

(1) In these Regulations, an ***access authority system***, for the safety management system of a complex electrical installation or an MEC's supply network, means a system—

(a) under which access to, or the carrying out of work on or near, the supply network or complex electrical installation to which the ESMS relates is controlled; and

(b) under which an access authority may be issued for the purpose of allowing access to, or the carrying out of work on or near, the supply network or complex electrical installation to which the ESMS relates; and

(c) that specifies the positions of the persons who are authorised by the MEC or the owner of the complex electrical installation to issue an access authority and to supervise that access or the carrying out of that work; and

(d) that ensures that persons authorised to issue an access authority and persons carrying out work under an access authority—

(i) are competent to do so; and

(ii) are provided with appropriate training, procedures, tools, equipment and emergency support.

(2) In these Regulations, an ***access authority system***, for a safety management system for electrical work carried out by electrical workers employed by an employer operator, means a system—

(a) under which the following is controlled—

(i) access to an electrical installation or electrical equipment while electrical work to which the ESMS relates is being carried out on the installation or equipment;

(ii) the carrying out of work near an electrical installation or electrical equipment while electrical work to which the ESMS relates is being carried out on the installation or equipment; and

(b) under which an access authority may be issued for the purpose of allowing access to, or the carrying out of work near, an electrical installation or electrical equipment while electrical work to which the ESMS relates is being carried out on the installation or equipment; and

(c) that specifies the positions of the persons who are authorised by the employer operator to issue an access authority and to supervise that access or the carrying out of that work; and

(d) that ensures that persons authorised to issue an access authority and persons carrying out work under an access authority—

(i) are competent to do so; and

(ii) are provided with appropriate training, procedures, tools, equipment and emergency support.

Part 2—Electricity safety management schemes

Division 1—Content of electricity safety management scheme—scheme operators

7 Specification of Australian Company Number or Australian Business Number

An ESMS submitted by a scheme operator must specify the ACN of the scheme operator or, if the scheme operator does not have an ACN, its ABN.

8 Person responsible for carrying out of electrical work or management of supply network or complex electrical installation

An ESMS submitted by a scheme operator must specify—

(a) in the case of an ESMS submitted by an employer operator, the name, title and business address of the person who is responsible for the management, control and safe carrying out of electrical work to which the scheme relates; and

(b) in the case of an ESMS submitted by an MEC or asset operator, the name, title and business address of the person who is responsible for the management, control and safe operation of the supply network or the complex electrical installation; and

(c) the name, title and business address of the person who has authorised the ESMS.

9 Person responsible for electricity safety management scheme

An ESMS submitted by a scheme operator must specify the title of the position of the person who is responsible for preparing, submitting and updating the scheme.

10 Scheme description—employer operators

(1) An ESMS submitted by an employer operator must contain a description of—

(a) the electrical work to which the scheme relates; and

(b) the electrical installation or electrical equipment in relation to which that electrical work is or will be carried out.

(2) The description must provide sufficient information to enable Energy Safe Victoria to—

(a) identify the location, extent and scope of the electrical installation or electrical equipment in relation to which the electrical work is or will be carried out; and

(b) assess the risks associated with the safety of the electrical installation or electrical equipment.

11 Scheme description—major electricity companies and asset operators

(1) An ESMS submitted by an MEC or asset operator must contain a description of the design, construction, operation and maintenance of the supply network or complex electrical installation to which the scheme relates.

(2) The description must provide sufficient information to enable Energy Safe Victoria to identify the location, extent and scope of every supply network or complex electrical installation

to which the ESMS relates and to assess the risks associated with the safety of the supply network or complex electrical installation.

12 Formal safety assessment—employer operators and asset operators

(1) An ESMS submitted by an employer operator or asset operator must contain a formal safety assessment relating to, as the case requires—

(a) the carrying out of electrical work for the employer operator; or

(b) the complex electrical installation owned or operated by the asset operator.

(2) The formal safety assessment must be consistent with the scheme description contained in the ESMS submitted by the employer operator or asset operator and must provide—

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

(b) an identification of hazards having the potential to cause a serious electrical incident; and

(c) a systematic assessment of the risks associated with any of the following, as the case requires, including but not limited to the likelihood and consequences of a serious electrical incident—

(i) the electrical work that is carried out in relation to an electrical installation or electrical equipment; or

(ii) the complex electrical installation; and

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

purposes of sections 120D, 120E and 120F of the Act, as the case requires.

13 Exemptions to be specified

For the purposes of section 117 of the Act, an ESMS submitted under Division 3 of Part 10 of the Act must specify—

(a) any provisions of the regulations relating to the following from which the scheme operator is to be exempt—

(i) the installation and operation of electrical installations;

(ii) supply networks; and

(b) in the case of a scheme under which a person authorised under the scheme to carry out a class or type of electrical work is to be exempt from compliance with any of the following regulations or provisions, those regulations and provisions from which the person is to be exempt—

(i) regulations relating to the carrying out of that class or type of work;

(ii) provisions referred to in section 117(1) of the Act; and

(c) in the case of a scheme under which a person carrying out a specified class or type of electrical work on the specified premises to which the scheme applies is to be exempt from compliance with any of the following regulations or provisions, those regulations and provisions from which the person is to be exempt—

(i) regulations relating to the carrying out of that class or type of work;

(ii) provisions referred to in section 117(2) of the Act; and

(d) in the case of a scheme under which the owner of a complex electrical installation is to be exempt from compliance with any of the following regulations or provisions, those regulations and provisions from which the owner is to be exempt—

(i) regulations relating to the operation, maintenance and decommissioning of the complex electrical installation;

(ii) provisions referred to in section 117(2A) of the Act.

Division 2—Content of safety management system—asset operators and employer operators

14 Safety management system

A safety management system specified in an ESMS submitted by an employer operator or asset operator must comply with this Division in relation to the safety of, as the case requires—

(a) the electrical work carried out or to be carried out by the persons authorised by the employer operator; or

(b) the design, construction, operation, maintenance and decommissioning of the complex electrical installation owned or operated by the asset operator.

15 Standards for works on complex electrical installations—published technical standards

(1) This regulation applies if there are published technical standards that relate to the design, construction, commissioning, installation, operation, maintenance and decommissioning of a complex electrical installation owned or operated by an asset operator.

(2) A safety management system in respect of the complex electrical installation must—

(a) list all of the published technical standards that the asset operator will comply with when designing, constructing, commissioning, installing, operating, maintaining and decommissioning the complex electrical installation; and

(b) if the asset operator chooses not to comply with a particular published technical standard, specify requirements for the design, construction, commissioning, installation, operation, maintenance and decommissioning of the complex electrical installation—

(i) that will ensure a level of safety in relation to those activities that is at least equal to or greater than the level of safety that would ensue from compliance with that standard; and

(ii) that the asset operator will comply with when carrying out those activities.

(3) If the safety management system specifies requirements under subregulation (2)(b), the safety management system must also include an explanation as to why the asset operator chose not to comply with the relevant published technical standard.

16 Standards for works on complex electrical installations—no published technical standards

(1) This regulation applies if there are no published technical standards that relate to the design, construction, commissioning, installation, operation, maintenance and decommissioning of a complex electrical installation owned or operated by an asset operator.

(2) A safety management system in respect of the complex electrical installation must specify requirements for the design, construction, commissioning, installation, operation, maintenance and decommissioning of the complex electrical installation—

(a) that will ensure the requisite level of safety as described in subregulation (3); and

(b) that the asset operator will comply with when carrying out those activities.

(3) The requisite level of safety is that the design, construction, commissioning, installation, operation, maintenance and decommissioning of the complex electrical installation—

(a) is adequate to ensure the safety of the public; and

(b) is adequate to minimise the risk of damage to another person's property; and

(c) is adequate to ensure the safety and safe operation of the complex electrical installation; and

(d) provides an adequate means of automatically isolating the complex electrical installation or any part of the installation in the event of an emergency; and

(e) provides an adequate means of preventing unauthorised access to the complex electrical installation by a member of the public.

17 Technical standards for electrical work

(1) A safety management system in respect of electrical work carried out or to be carried out by persons authorised by an employer operator must—

(a) list every published technical standard that applies to the electrical work; and

(b) if the employer operator chooses not to comply with a particular published technical standard, specify requirements in relation to the carrying out of the electrical work that will ensure a level of safety in the carrying out of the work that is at least equal to or greater than the level of safety that would ensue from compliance with that standard.

(2) If the safety management system specifies requirements under subregulation (1)(b), the safety management system must also include an explanation as to why the employer operator chose not to comply with the relevant published technical standard.

18 Complex electrical installations—design, construction, installation, operation, maintenance and modification

A safety management system in respect of a complex electrical installation must specify the means by which an asset operator will ensure that the design, construction, commissioning, installation, operation, maintenance and decommissioning of the complex electrical installation and any modification of the complex electrical installation—

(a) is adequate to ensure the safety of the public; and

(b) is adequate to minimise the risk of damage to another person's property; and

(c) is adequate to ensure the safety and safe operation of the complex electrical installation and the safe carrying out of electrical work on the installation; and

(d) takes into account the results of the formal safety assessment under regulation 12 for the complex electrical installation; and

(e) meets—

(i) any published technical standards listed in the safety management system under regulation 15(2)(a); or

(ii) any requirements specified in the safety management system under regulation 15(2)(b) or 16(2); and

(f) provides adequate means of automatically isolating the complex electrical installation or any part of the installation in the event of an emergency; and

(g) provides adequate means of preventing unauthorised access to the complex electrical installation; and

(h) is adequate for monitoring and maintaining the integrity of the complex electrical installation taking into account the expected operational life of the installation.

19 Requirements in relation to electrical work

(1) A safety management system in respect of the carrying out of electrical work must specify the means by which an employer operator will ensure that the electrical work—

(a) is adequate for the safe operation of the electrical installation or electrical equipment in relation to which electrical work is carried out and the safe carrying out of that work; and

(b) takes into account the results of the formal safety assessment for the scheme; and

(c) meets—

(i) any published technical standards listed in the safety management system under regulation 17(1)(a); or

(ii) any requirements specified in the safety management system under regulation 17(1)(b); and

(d) is carried out by the persons authorised to carry out the work.

(2) The safety management system specified in an ESMS submitted by an employer operator that is the owner or operator of a railway must specify the means by which the operator will ensure that it meets its duties under—

(a) section 75(2) of the Act in relation to the supply network of the railway; and

(b) section 94 of the Act in relation to minimising the risks of stray electrical current leakage from the railway.

20 Access authority system

(1) The safety management system specified in an ESMS submitted by an asset operator must specify—

(a) the complex electrical installation or part of the installation for which an access authority system must be established; and

(b) the access authority system that is to apply in respect of—

(i) the operation or maintenance of the complex electrical installation or part of the installation; or

(ii) work that is to be carried out on or near the complex electrical installation or part of the installation.

(2) The safety management system specified in an ESMS submitted under section 115 of the Act must specify—

(a) the electrical work carried out or to be carried out on or near an electrical installation or electrical equipment at the premises in respect of which the scheme is submitted for which an access authority system needs to be established; and

(b) the access authority system that is to apply to that work.

21 Emergency preparedness

(1) A safety management system must specify a response plan designed to address all reasonably foreseeable emergencies that have been identified through the formal safety assessment under regulation 12.

(2) The response plan must—

(a) ensure the safety of the public; and

(b) minimise the risk of damage to another person's property; and

(c) specify a system for communications between the asset operator or employer operator, as the case requires, and any other person who may be affected by an

emergency identified through the formal safety assessment; and

(d) in the case of an asset operator, specify the means by which the asset operator will ensure the continued safety of the complex electrical installation and its operation; and

(e) in the case of an employer operator, specify the means by which the employer operator will ensure the continued safety of electrical work being carried out on electrical installations and electrical equipment.

22 Internal monitoring, auditing and reviewing

(1) A safety management system must specify the means by which an asset operator or employer operator will—

(a) monitor and audit the implementation of the safety policies and procedures specified in the safety management system; and

(b) review the adequacy of those policies and procedures.

(2) A safety management system must specify the means to be used to ensure—

(a) regular and systematic identification of deficiencies in those policies and procedures and in their implementation; and

(b) systematic improvement in those policies and procedures and in their implementation.

23 Key performance indicators

A safety management system must specify—

(a) the key performance indicators to be used to determine an asset operator's or employer operator's level of compliance with the ESMS, the relevant provisions of the Act and regulations made under the Act; and

(b) the process to be adopted to analyse the key performance indicators and to ensure that appropriate action is taken to improve compliance if required.

24 Incident recording, investigation and reviewing

A safety management system must specify—

(a) the means to be used for recording and investigating serious electrical incidents involving, as the case requires—

(i) an asset operator's complex electrical installation; or

(ii) electrical work carried out by an electrical worker employed or engaged by an employer operator; and

(b) the management systems to be used for reviewing and taking action on the information so recorded or arising from those investigations.

25 Competence and training

(1) The safety management system specified in an ESMS submitted by an asset operator must specify the work and staffing systems required for the safe design, construction, operation, maintenance and decommissioning of the complex electrical installation to ensure that—

(a) the minimum level of qualifications, skill and competence that is required to perform those activities is established; and

(b) only persons with the appropriate qualifications, skills and competence are assigned to perform those activities; and

(c) any training necessary for persons assigned to perform those activities is provided.

(2) The safety management system specified in an ESMS submitted by an employer operator must specify the work and staffing systems used in carrying out the electrical work to which the scheme relates to ensure that—

(a) the minimum level of qualifications, skill and competence that is required for the carrying out of the electrical work is established; and

(b) only persons with the qualifications, skills and competence appropriate to the work are assigned to carry out that work; and

(c) any training necessary for persons assigned to carry out the work is provided.

Division 3—Content of safety management system—major electricity companies

26 Safety management system—MEC

For the purposes of section 99(2)(b) of the Act, the ESMS for a supply network of an MEC must specify a safety management system that—

(a) complies with AS 5577 and contains a description of the technical and other measures undertaken or to be undertaken to minimise, as far as practicable, the risks identified in the formal safety assessment carried out in accordance with that standard; and

(b) specifies the means by which the MEC will monitor and maintain the integrity of the supply network taking into account the expected operational life of the network; and

(c) explains how the measures described in paragraph (a) and the means specified in paragraph (b) will enable the MEC to meet its duties under section 98 of the Act.

Part 3—Records and reporting

27 Records

(1) An accepted ESMS operator must, in accordance with this regulation, establish and maintain a system for keeping records relating to its accepted ESMS.

Penalty: 20 penalty units.

(2) The accepted ESMS operator must keep the following records—

(a) the accepted ESMS;

(b) any revisions of the accepted ESMS;

(c) any written audit reports of the accepted ESMS;

(d) any reports of investigations of incidents involving—

(i) if the accepted ESMS operator is an employer operator, the carrying out of electrical work; or

(ii) if the accepted ESMS operator is an MEC, the MEC's supply network; or

(iii) if the accepted ESMS operator is an asset operator, the operator's complex electrical installation;

(e) a copy of each report given by the accepted ESMS operator to Energy Safe Victoria;

(f) if the accepted ESMS operator is an employer operator or asset operator, a register of the names and qualifications of persons nominated to carry out electrical work under the accepted ESMS.

(3) The accepted ESMS operator must keep records under subregulation (2)—

(a) at the address nominated by the accepted ESMS operator in the accepted ESMS; and

(b) in a manner that makes their retrieval reasonably practicable; and

(c) in a secure manner; and

(d) for the period of 7 years after their creation.

28 Requirements for reporting of serious electrical incidents by major electricity companies

(1) For the purposes of section 142(1) and (2) of the Act, an electricity supplier that is an MEC must, if this regulation applies—

(a) notify Energy Safe Victoria of a serious electrical incident as soon as practicable as specified in reporting guidelines issued by Energy Safe Victoria from time to time; and

(b) provide Energy Safe Victoria with a report of the incident in accordance with the reporting guidelines.

(2) This regulation applies if a serious electrical incident—

(a) caused the death of or injury to a person; or

(b) caused significant property damage; or

(c) caused significant disruption to the community; or

(d) involved an electric line with a nominal voltage of more than 66 000 volts; or

(e) involved an imminent risk of electrocution; or

(f) involved a fire originating from the MEC's supply network; or

(g) involved any of the following—

(i) an explosive failure of an asset;

(ii) a reverse polarity;

(iii) a high voltage injection;

(iv) a switching operation that inadvertently caused energisation;

(v) a person coming into contact with an energised network asset;

(vi) an energised bare conductor that is less than 4·3 metres above the ground;

(vii) part of the MEC's supply network becoming dislodged from its supporting structure;

(viii) an uncontrolled release of a live conductor.

29 Reporting of other serious electrical incidents by major electricity companies

(1) This regulation applies to serious electrical incidents other than serious electrical incidents described in regulation 28(1).

(2) For the purposes of section 142(1) and (2) of the Act, an electricity supplier that is an MEC must report to Energy Safe Victoria a serious electrical incident to which this regulation applies in accordance with the reporting guidelines referred to in regulation 28(1).

Part 4—Fees

30 Annual administration fees

(1) An asset operator or employer operator must pay an annual fee of 965 fee units to Energy Safe Victoria for considering an ESMS submitted by the asset operator or employer operator and administering the ESMS.

(2) The fee set out in subregulation (1) is payable on the acceptance of the ESMS and on each anniversary of that acceptance.

31 Waiver or rebate of fees

(1) Energy Safe Victoria may waive or rebate all or part of the fee under regulation 30 if, in the opinion of Energy Safe Victoria—

(a) the consideration of the ESMS would impose or has imposed a lesser burden than usual on Energy Safe Victoria; or

(b) the administration of the ESMS imposes no appreciable burden or a lesser burden than usual on Energy Safe Victoria.

(2) In deciding whether to waive or rebate all or part of a fee under regulation 30, Energy Safe Victoria may have regard to the scheme operator's safety performance and compliance with the accepted ESMS.

Part 5—Exemptions

32 Exemptions from regulation requirements

(1) Energy Safe Victoria may, on the application of a scheme operator, exempt an ESMS from all or any of the regulations in Part 2.

(2) An application for the purposes of subregulation (1) must be in writing and state—

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

(b) the regulations in relation to which the exemption is requested; and

(c) the reasons the applicant is applying for the exemption.

(3) An exemption granted under subregulation (1) may be subject to conditions specified by Energy Safe Victoria.

(4) A scheme operator to whom an exemption is granted under subregulation (1) must comply with the conditions (if any) specified in the exemption.

Penalty: 20 penalty units.

Endnotes

[1] Reg. 4(a): S.R. No. 165/2009 as amended by S.R. No. 131/2013.

[2] Reg. 4(b): S.R. No. 131/2013.

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Fee Units

These Regulations provide for fees by reference to fee units within the meaning of the **Monetary Units Act 2004**.

The amount of the fee is to be calculated, in accordance with section 7 of that Act, by multiplying the number of fee units applicable by the value of a fee unit.

The value of a fee unit for the financial year commencing 1 July 2019 is $14.81. The amount of the calculated fee may be rounded to the nearest 10 cents.

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

Penalty Units

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

The value of a penalty unit for the financial year commencing 1 July 2019 is $165.22.

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

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

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Table of Applied, Adopted or Incorporated Matter

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

Statutory rule provision	**Title of applied, adopted or incorporated document**	**Matter in applied, adopted or incorporated document**
Regulation 5 (definition of ***AS 5577***)	AS 5577 Electricity network safety management systems, published on 12 April 2013 by Standards Australia	The whole

Appendix 2 Statement explaining the proposed Regulations

Part 1 (Regulations 1 to 6) – Preliminary

Part 1 of the proposed Regulations contains provisions that provide for the operation of the statutory rule. It sets out the objective of the proposed Regulations (**Regulation 1**), which is to provide for the requirements, procedures, and other matters relating to the acceptance of electricity safety management schemes.

Regulation 2 provides the statutory authority under which the proposed Regulations are made. The Regulations are made under ss.150 and 157 of the *Electricity Safety Act 1998*. **Regulation 3** provides that the proposed Regulations come into operation on 29 November 2019, while **Regulation 4** revokes the current Electricity Safety (Management) Regulations 2009 and Electricity Safety (Management) Amendment Regulations 2013.

Regulation 5 provides definitions to assist in the interpretation of the proposed Regulations. There are definitions for access authority system, AS 5577, *asset operator, emergency service, employer operator, ESMS,* MEC, *published technical standard*, scheme operator and the Act. (New and updated definitions are in italics.) The definitions of asset operator and employer operator have been modified to align more closely with the classifications of electricity safety management schemes sought under sections 114, 115 and 116 of the Act.

Regulation 6 provides a further definition of what an access authority system is to provide for greater consistency of terminology.

Part 2 (Regulations 7 to 26) – Electricity safety management schemes

Regulation 7 is a new provision requiring an electricity safety management scheme submitted by a scheme operator to specify the Australian Company Number or Australian Business Number. This enables ESV to efficiently identify the entity that is submitting the electricity safety management scheme and which is information the entity submitting the scheme will already have.

Regulation 8 specifies that an electricity safety management scheme must include the name, title and business address of the person who is responsible for the management, control and safe carrying out of electrical work or operation of the supply network to which the scheme applies. It also includes a new requirement to specify the name, title and business address of the person who has authorised the electricity safety management scheme. This change to the regulation will improve accountability by requiring the person with ultimate management control of the electricity safety management scheme to authorise the scheme before its submission to ESV.

Regulation 9 requires that an electricity safety management scheme must specify the title of the person who is responsible for preparing, submitting and updating the scheme.

Regulation 10 provides that an electricity safety management scheme submitted by an employer operator must contain an description of the electrical work and electrical installation or equipment to which the electrical work will be carried out, and other information relation to the location, extent and scope of the electrical installation or equipment. It also requires an assessment of the risks associated with the safety of the electoral installation or equipment.

Regulation 11 requires that an electricity safety management scheme submitted by a major electricity company or asset operator must contain a description of the design, construction, operation and maintenance of the supply network or complex electrical installation to which the scheme applies. It also requires that the description is sufficient to enable ESV to identify the location, extent and scope

of the supply network or complex electrical installation. The regulation has been renamed to reflect a better alignment with the Act.

Regulation 12 requires an electricity safety management scheme to contain a formal safety assessment, which must provide a description of the methodology used and investigations undertaken for the formal safety assessment, an identification of hazards with the potential to cause a serious electrical incident, and a systematic assessment of risk, including the likelihood and consequences of a serious electrical incident, as well as a description of technical and other measures undertaken, or to be undertaken, to minimise that risk as far as practicable.

The regulation contains a modification requiring a description of the adequacy of the technical and other measures adopted or to be adopted to reduce the risks as far as practicable for the purposes of sections 120D, 120E or 120F of the Act, as the case requires.

Regulation 13 requires that, for the purposes of section 117 of the Act, than an electricity safety management scheme submitted must specify the provisions of the regulations of the installation or supply networks from which the scheme operator seeks to be exempted. It also requires an electricity safety management scheme authorised to carry out a class or type of electrical work specify the regulations from which the person seeks to be exempted. It requires that in the case of an electricity safety management scheme for a class or type of electrical work on specified premises specify the regulations the class or type of work is to be exempted from.

Regulation 14 requires that a safety management scheme specified in an electricity safety management scheme by an employer operator or asset operator comply with the Division (**Regulations 14** to **27**). This requires the listing of published technical standards for complex electrical installations (**Regulation 15**), standards for work on complex electrical installations where there are no published standards (**Regulation 16**), published technical standards for electrical work carried out by persons authorised by an employer operator (**Regulation 17**), the means by which an asset operation will ensure that the design construction, installation, operation, maintenance and modification of complex electrical installations is safe (**Regulation 18**), requirements for employer operators to ensure electrical work is adequate for safe operation taking into account the results of the formal safety assessment under Regulation 12 and meets published technical standards (**Regulation 19**). **Regulation 19** contains new provisions to require the safety management system to specify how it will, where applicable (for rail operators) meet the general duties under sections 75(2) and 94 of the Act.

The safety management system is also required to specify the complex electrical installation for which the access authority system is established and for an electricity safety management scheme submitted under section 115, the electrical work carried out in respect of the scheme (**Regulation 20**), the emergency response plan (**Regulation 21**), internal monitoring and auditing of policies and procedures (**Regulation 22**), key performance indicators (**Regulation 23**), means to be used for recording and investigating serious electrical incidents (**Regulation 24**) and levels of qualifications, skills and competence and training to perform the required activities and carrying out work on a complex electrical installation (**Regulation 25**).

Regulation 26 requires a safety management system for a supply network to describe how it will comply with AS 5577. This regulation has been expanded to also require it to describe the technical and other measures to reduce risks as far as practicable the risks identified in the formal safety assessment. This change resolves the gap that had been created when AS 5577 was inserted in 2013 as described in this paper.

Regulation 26 will also require the safety management system to specify the means by which the MEC will monitor and maintain the integrity of the network taking into account the expected operational life of the network. A similar provision was included in the *Gas Safety (Safety Case) Regulations 2018* to ensure that the long term safety of the network is not compromised by relatively short term economic decisions. This is expected to reflect information that the network operator will already have in its possession.

Part 3 (Regulations 27 to 30) – Records and reporting

Regulation 27 specifies that the operator of an accepted an electricity safety management scheme must establish and maintain a system for keeping records relating to the electricity safety management scheme. The records required to be kept are: the accepted electricity safety management scheme, any revisions of the accepted electricity safety management scheme, any written audit reports of the accepted electricity safety management scheme, any reports of investigations by the employer operator, MEC or asset operator of incidents, and a copy of each report given by the operator to ESV. The records must be kept at the address or location nominated in the electricity safety management scheme by the operator; and in a manner that makes their retrieval reasonably practicable. In addition, records must be stored in a secure manner for the period of seven years from their creation.

Regulation 28 has been revised from Regulation 27 of the current Regulations to require major electricity companies to notify ESV of serious electrical incidents as soon as practicable as specified in guidelines issued by ESV after the incident occurs, and then a written report in a time and manner specified in a guideline issued by ESV. The regulation specifies that it applies to certain events. This list of events is new and was expanded with more detail to remove doubt about what a serious electrical incident is and when it must be reported. **Regulation 29** has been amended (from the current Regulation 28) to no longer require the reporting of non-serious electrical incidents. It has been amended to require that other serious electrical incident not listed in Regulation 28 can be reported by major electrical incidents in a manner and timeline issued by ESV. The intent is to enable those other serious electrical incidents to be reported separately from those listed under Regulation 28 to reflect their relative lower level of concern.

Part 4 (Regulations 30 to 31) – Fees

Currently no fees are prescribed under the Electricity Safety (Management) Regulations for electricity safety management schemes accepted under sections 114, 115 or 116 of the Act. **Regulation 30** is a new regulation that prescribes fees for electricity safety management scheme under those sections. ESV considers that the introduction of fees in relation to the increased level of regulatory interaction is appropriate and will establish parity with the gas sector where fees have been introduced in line with government policy on cost recovery.

A holder of an ESMS under s. 114, 116 or 116 Act must pay an annual administration fee of 965 fee units to Energy Safe Victoria.

The administration fee is payable on acceptance of the electricity safety management scheme and on each anniversary of acceptance.

Regulation 31 is a new regulation which permits ESV to waive or rebate all or part of the fees payable under Regulation 30 in specified circumstances.

Part 5 (Regulation 32) - Exemptions

Regulation 32 is a new regulation which provides that ESV may, on the application of a scheme operator exempt an electricity safety management scheme from having to comply with any of the regulations of Part 2, which is the content of safety management schemes for a scheme operator. This adds flexibility in administration and reduces regulatory burden for some participants where approving an exemption would be appropriate in the circumstances. Such an application must be in writing and state the reasons for applying for the exemption. Any exemption provided by ESV must be in writing and include conditions (if any) to which the exemption is subject.

Appendix 3 Independent review of cost impact

Appendix 3 is the independent review conducted by RIS Pty Ltd, accompanying this paper.

This has been prepared in consultation with ESV and OCBR.

The fees expressed in this Appendix are based on fee units for 2018-19 of $14.45, whereas this paper is using the updated fee units for 2019-20 of $14.81, as indicated in the Note on page 11.

This is why the fees calculated for voluntary ESMSs in this paper are higher than those expressed in Appendix 3

Appendix 4 General duties applying to voluntary ESMSs

This appendix sets out the general duties applying to holders of voluntary ESMSs from the Act.

120D Duty of employer of electrical workers

An employer of electrical workers who carry out electrical work to which an accepted ESMS applies must manage the carrying out of that electrical work to minimise as far as practicable—

(a) the hazards and risks to safety of any person arising from electricity; and
(b) the hazards and risks to property arising from electricity.

120E Duty of occupier of specified premises

The occupier of specified premises at which electrical work is carried out, and to which an accepted ESMS applies, must manage the carrying out of that electrical work at the specified premises to minimise as far as practicable —

(a) the hazards and risks to safety of any person arising from electricity; and
(b) the hazards and risks to property arising from electricity.

120F Duty of owner of complex electrical installation

An owner of a complex electrical installation must, in respect of the complex electrical installation to which an accepted ESMS applies, manage that complex electrical installation to minimise as far as practicable —

(a) hazards and risks to the safety of any person arising from the complex electrical installation; and
(b) the hazards and risks of damage to property of any person arising from the complex electrical installation.

In each case, the penalty for non-compliance with the general duty is 200 penalty units in the case of a natural person, or 1,000 penalty units in the case of a body corporate.