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**REGULATORY IMPACT ASSESSMENT FOR THE ELECTRICAL SAFETY (REGISTRATION AND LICENSING) AMENDMENT REGULATIONS 2022**

I would like to thank your staff at the Department of Environment, Land, Water and Planning (the Department) for working with the team at Better Regulation Victoria on the preparation of a Regulatory Impact Assessment (RIS) for the Electrical Safety (Registration and Licensing) Amendment Regulations 2022 (the proposed Regulations).

As you know, the Commissioner for Better Regulation provides independent advice on the adequacy of the analysis provided in all RISs in Victoria. A RIS is deemed to be adequate when it contains analysis that is logical, draws on relevant evidence, is transparent about any assumptions made, and is proportionate to the proposal’s expected effects. The RIS also needs to be written clearly so that it can be a suitable basis for public consultation.

I am pleased to advise that the final version of the RIS received by us on
27 May 2022 meets the adequacy requirements set out in the *Subordinate Legislation Act 1994*.

**Background and Problems**

Electrical work has the potential to cause serious injury or death if undertaken without proper care. Harm can occur through contact with live electrical parts, or through fires and explosions. The risk posed by electrical installations rises significantly in the case of failure to follow best practice or comply with safety regulations.

The safety, reliability, security and efficiency of electricity supply is regulated in Victoria through the *Electricity Safety Act 1998.* The Act requires all prescribed electrical installations to be inspected and certified by a Licensed Electrical Inspector (LEI) before they are connected to receive electrical current (energised). In this context, the term ‘prescribed installation’ refers to electrical work which is more complex or poses a greater risk if completed in a non-compliant manner. The Electrical Safety (Registrations and Licensing) Regulations 2020 (the current Regulations) set out a licensing framework for LEIs. This framework is based on five licence classes. These classes of inspector are aligned to the broad types of prescribed electrical installations and the level of risk associated with them. Licences are granted by Energy Safe Victoria (ESV) as the responsible regulator, based on the ability of candidates to demonstrate the necessary qualifications, proficiency and experience.

In 2021, ESV undertook a *Review of the Entire Electrical Inspection Regime* (the Review). The Department explains in the RIS that the proposed Regulations seek to address three problems with the licensing regime for inspections of renewable electricity installations highlighted by the Review:

1. Unsafe and technical defects in renewable electrical systems not being identified under the current inspection regime.
2. The treatment of renewables under the existing Class G licence not supporting optimal safety outcomes; and
3. Safety risks being expected to increase in the future as the volume of renewable installations increases.

To certify renewable installations, Inspectors are currently required to hold a Class G licence. The Class G is a broad licence class which covers the inspection of any prescribed electrical installation not regulated by a specialised licence. However, the Review raised concerns about renewable installations being included under the broad mandate of the Class G licence, as renewable systems are more technically complex and can pose a greater safety risk than typical low voltage installations. Exposure to the elements, inaccessibility and the presence of electricity produced or stored locally via solar panels or batteries increase safety risk. Renewable energy technology is also evolving rapidly.

Under the current licensing framework, applicants for the Class G licence are not directly assessed on their knowledge of renewable systems. The Review suggests these gaps in LEI training and assessment contribute to a higher rate of failure in identifying safety risks.

The Department expresses concern that safety risks may increase in the future due to a greater volume of renewable installations. In line with the net zero carbon emissions target legislated in the *Climate Change Act 2017*, the share of Victoria’s electricity generation coming from renewables is expected to double over the next decade, increasing from 25 per cent of total capacity in 2020 to 56 per cent by 2030. The Department expects the increasing scale of renewable installations and the introduction of new renewable technologies to exacerbate safety risks if not addressed through these amended regulations. Increased renewable electricity production is also expected to rely on more complex systems with larger capacities and battery storage. Stakeholder feedback also indicated the Class G licence may not be fit for purpose to certify these more complex or innovative installations.

**Options and Impact Analysis**

In the RIS, the Department analyses options to address the problems identified above. This analysis has two parts:

* Part A analyses whether to introduce a new specialised licence class to cover renewable installations; and
* Part B analyses whether the existing Class G licence should be required to be held alongside the preferred option for a new renewable licence class from part A.

Options are analysed using a multi-criteria analysis (MCA). The criteria and weightings in the MCA are:

* Safety outcomes (50 per cent)
* Impact on LEIs – financial and administrative burden (25 per cent)
* Impact on the rollout of renewables (15 per cent)
* Impact on Energy Safe Victoria – administrative burden (10 per cent)

Two options are analysed in part A. Both options would introduce a new class of licence requiring LEIs to demonstrate specialised knowledge of renewable technologies. This new licence would be required in order to certify all low voltage renewable installations which can currently be certified under the Class G licence. The two options are differentiated by whether they would specify licence conditions in the regulations or in supplementary guidance material.

* Option A1: new LEI class covering all renewable systems with licencing conditions for small and large-scale systems specified *in* the Regulations
* Option A2: new LEI class covering all renewable systems with conditions for small and large-scale systems specified *outside* the Regulations.

Both options are compared with the status quo where prescribed renewable systems continue to be inspected by LEIs holding only a Class G licence. They are assessed against the four criteria.

* *Safety outcomes*: Both options improve safety outcomes relative to the status quo, as they require LEIs to demonstrate sufficient competency in inspecting renewable systems. The Department explains that Option A2 performs best, as listing licence conditions outside of the regulations provides ESV with greater flexibility to promptly address safety risks from emerging technologies.
* *Impact on LEIs*: The Department explains that both options will impose the same financial costs on the LEI workforce in terms of time taken to apply for the new licence as well as additional CPD requirements. However, Option A1 performs slightly better due to the certainty provided by specifying licence conditions in the regulations.
* *Impact on the rollout of renewables*: Both options are also expected to have some impact on the rollout of renewables, as they may reduce the size of the LEI workforce eligible to inspect renewable installations. However, the Department notes that the impact will be minimised by a proposed transition period of 18 months. During this period, renewable installations will still be certifiable under the Class G licence. Option A2 performs slightly better on this criterion because emerging technologies could be more easily incorporated into the licensing framework in future.
* *Impact on ESV*: Under both options, ESV will incur additional costs in designing and administering the new licence classes. Option A2 performs slightly better against this criterion, as it would allow ESV to respond to technological changes by updating guidance over time. In contrast, Option A1 may require future amendments to regulations, imposing a greater burden on ESV.

Ultimately, the preferred option for part A is Option A2, to introduce a new class of LEI licence covering all prescribed renewable systems with licencing conditions specified outside of the Regulations.

One option (B1) is analysed in part B, assuming a new LEI class for renewable systems is introduced (Options A1 or A2). Option B1 is analysed against a base case where the Class G licence would not be required to be held alongside the new licence class.

* *Safety outcomes*: Option B1 is assessed as improving safety outcomes relative to the base case. It would ensure that LEIs have a foundational level of competence in electricity safety and a thorough understanding of their responsibilities as an LEI. This would assist in identifying safety issues related to the interaction of renewable installations with broader electricity systems.
* *Costs on LEIs*: Option B1 is assessed as imposing additional costs on LEIs due to additional continuing professional development (CPD) being required for holding an additional licence. The Department explains that this option also increases application costs for prospective LEIs who would only inspect renewables.
* *Impact on the rollout of Renewables*: This option is assessed as having minimal impact on the rollout of renewables.
* *Impact on ESV*: The impact on ESV is assumed to be marginal beyond the costs already incurred to implement either option A1 or A2.

The Department’s preferred option is to introduce a new LEI class covering all renewable systems with conditions for small and large-scale systems specified outside the Regulations (Option A2) and require the Class G licence to be held alongside the new class (Option B1). It explains that its preferred option would impose the following additional costs on the LEI workforce:

* For existing LEIs who inspect renewables, one hour to apply for the new renewable licence class and $520 to meet CPD requirements for renewal (fees to undertake CPD courses and foregone income in terms of time costs). The Department assumes that there will be no additional fees or time costs involved in acquiring a second licence because both licences can be jointly renewed; and
* For prospective LEIs who inspect renewables, one hour to apply for the new renewable licence class, $320 for an examination (examination fee and time cost).

The Department explains that the size of the LEI workforce inspecting renewables is unknown but could be up to 200. It explains that 46 LEIs undertake about 80 per cent of renewable inspections through the Solar Homes Program.

**Implementation and Evaluation**

In the RIS, the Department explains that ESV will be responsible for implementing and evaluating the proposed Regulations. ESV will undertake the following key actions to implement the proposed Regulations:

* Develop licensing conditions for the new specialised renewables licence class.
* Develop the application, assessment, training and continuous professional development (CPD) requirements for the new licence class.
* Update ESV’s online resources to incorporate the new licence class.
* Communicate the proposed changes to stakeholders.

For efficiency, the Department recommends that the proposed Regulations are evaluated as part of the mid-term review of the current Regulations, which is scheduled to be three to five years from 2020. The Department explains that the amendments in the proposed Regulations would be evaluated against the objectives of:

* Improving the safety of renewable electrical installations; and
* Ensuring that electrical inspection work on prescribed renewable electrical installations is being undertaken by competent persons with appropriate skills and experience.

The Department explains that ESV has already set up processes that will complement evaluation of the proposed Regulations. These processes include regular consultation and engagement with Solar Victoria as well as small, medium, and large renewable energy installers, through Solar Victoria’s Industry and Consumer Reference Group. The Proposed Regulations will allow ESV to gather additional data on prescribed renewable electrical systems and the size of the LEI workforce inspecting renewables. This will be used along with existing audit data covering solar installations to evaluate the Proposed Regulations over time.

Yours sincerely



**Anna Cronin**

Commissioner for Better Regulation