

Submission to Essential Services Commission (Vic)

Public Lighting Code Review

September 2025

Context

I am a member of the public with extensive background of operational issues related to public lighting faults within Melbourne. My occupation involves me driving in metropolitan Melbourne full time, mainly during night time hours.

In recent years I have reported in the order of 10,000 individual (or area) public lighting failures. I also have ongoing contact with Public Lighting Subject Matter Experts (SME's) at a number of the electricity distributors, as a result of needing to follow up either specific or broad issues associated with public lighting operational issues.

I have a long history of previously having dealt with ESC staffers regarding concerns around public lighting obligations and operational issues, in 2011 & 2019 with [REDACTED], and more recently, in early 2025 with [REDACTED]. These interactions are expanded on below.

Due to the length of time I have been involved in operational public lighting matters, I have a good knowledge of the technology involved, such as lamp types and technologies (HPS, LED etc.), as well as emerging technologies (i.e. smart cells).

From the perspective of the general public and road users (motorists, cyclists, pedestrians etc.), at present, there remain some ongoing concerns and issues to do with the provision of public lighting in metropolitan Melbourne.

Prior contact with ESC in relation to PLC (Public Lighting Code)

As referenced above, the author has had multiple contacts with the ESC regarding the PLC over the years. In 2011 and 2019 this was with [REDACTED].

Then, in early 2025, aware that the current PLC was last issued in 2015 (and 2005 prior to that), the author contacted the ESC asking whether a review/consultation for the PLC was imminent, as well as going into detail about current operational concerns/shortcoming regarding public lighting, and associated road safety issues, as well as proposed solutions to the issues. This was discussed with [REDACTED] at the ESC. During this discussion, it was apparent to the author that the ESC was not generally aware of the issues or concerns.

Copies of this prior correspondence can be provided to the ESC on request, if necessary.

Issues and concerns with public lighting with respect to the PLC

It is helpful at this point to outline the specific concerns with public lighting with respect to the PLC. As will be seen, most of these concerns relate to operational issues, generally regarding asset maintenance:

- Major road patrol oversight/issues
- Definition of a complex fault
- Requirement to be at an adjacent property for compensation payment

Major road patrol oversight/issues

A longstanding element of the PLC is that major roads (as defined in the Code) are routinely (proactively) patrolled three times per year. The context for this is that arterial roads have high traffic volumes, usually combined with higher speed zones (60km/h or greater). Additionally, the likelihood of faults on these roads being reported by members of the public (MOP's) is lower than a residential street.

However, the author has been aware for a considerable time that there are often issues with these major road patrols. Lights on arterial roads have been (and continue to be) observed to not be working for extended periods, well in excess of the (average) expected 4-monthly inspection interval. Also, several examples have (and continue to be) identified by the author of entire bracket/luminaire

assemblies being missing, in some cases for over a decade (generally as a result of a pole replacement being done, with a public light being “forgotten” during the installation of the new pole).

As mentioned, arterial roads have high traffic volumes at relatively high speeds. Where public lighting exists, it is essential for road safety. In this context, in discussions with [REDACTED] in early 2025, it was recommended that, as part of an updated PLC, additional requirements around major road patrols be included.

These additional requirements could be as simple as the distributor conducting their own, random check of luminaires not working along corridors where a major road patrol is imminent, and then making sure that the majority of lights identified in the random check were captured by the major road patrol (i.e., as a check to ensure that the major road patrol was actually being conducted, and in a thorough manner).

This is considered particularly important, given that most (if not all) distributors outsource the task of major road patrols to service providers/contractors (meaning there is inherently less oversight and control of the process due to it being outsourced/contracted out).

As just one example of this problem, as recently as 2025, the author is aware of a section of the Nepean Hwy, where multiple individual luminaires were not operational. This was not picked up by multiple major road patrols – only being resolved when the author contacted United Energy, and their Public Lighting SME conducted an inspection, resulting in over 10 nonoperational luminaires being identified along the relevant section of road.

Definition of a complex fault

The author mostly reports nonoperational luminaires on major (not minor) roads. An issue that has been identified is that some distributors mainly, or solely, conduct their public lighting repairs during daylight hours, when roads are busier, as opposed to conducting repairs at night, when roads are quieter. It is understood the distributors that operate in this manner do so to minimise their costs associated with staff (or service provider staff) working at night (i.e. to minimise costs associated with penalty/night rates).

The problem that arises is that, on major roads during the day, there are often situations where traffic conditions mean it isn't feasible for the repair to be conducted at that time. This then results in the fault being deemed as a “complex fault” by the field staff, which then almost always results in the luminaire not being repaired within the required timeframe.

Heavy traffic is not considered to be within the realm of what would reasonably be considered a “complex” fault. Genuine examples of complex faults are situations like an entire pole missing (due to a crash); power supply failures, or genuine access issues (i.e. an area under reconstruction).

During discussions with the ESC in early 2025, I recommended that a “complex fault” be codified, with traffic conditions not being considered a valid reason to categorise a fault as “complex”.

This would result in the distributor and their service provider needing to instate processes to ensure that, even on major roads, nonoperational luminaires would, in the main, still be repaired within required timeframes.

Requirement to be at an adjacent property for compensation payment

Currently, the compensation payment element of the PLC requires that, in order to be eligible for a compensation payment, the reporter must be reporting the light closest to their home or business. This means that, aside from altruism, there is no incentive for a member of the public to take the time to report a nonoperational light, unless it happens to be the light closest their home or business. Additionally, it means there is no financial incentive for the distributor to repair a reported nonoperational luminaire within the set timeframes.

During the discussion with the ESC in early 2025, I recommended that the requirement for the reported faulty light to be the closest light to the reporter's home or business (in order to be eligible for the GSL payment) be removed. Effectively, this would mean anyone reporting a faulty luminaire would be eligible for the compensation payment, provided they were the first person to report the fault, and the fault was not fixed within the required timeframe.

The benefit of this is that it would provide a significant incentive for members of the public to take the time to report a faulty luminaire. It would also incentivise distributors to ensure they have processes in place to repair reported faults in a timely manner. Finally, it would simplify compensation claims for distributors, because there would no longer need to be a check for whether the light was the one closest the premise of the reporter – the Distributor would only need to confirm the light was not repaired within the specified timeframe, and that the reporter was the first to report the fault – both of which are understood to be automated processes.

Implementation of this element would also act to reward those people in the community who take the time to report faulty public lights. The positive impact this has on road safety (and safety generally) should not be discounted.

Concerns with proposed clause changes

It is noted that some clauses in the Minimum Standards section of the existing code are proposed to be changed. There are some concerns with the proposed changes, as follows:

- 2.3.1 (c) and (e) - *remove the 4 and 8 years replacement cycle requirements*

This change may be appropriate where a smart cell is installed. However, the clause needs to stipulate appropriate timeframes based on whether an individual luminaire is legacy, LED, or smart cell.

Even LED luminaires are understood to require replacement on a scheduled basis, and PE cell technology in itself is not understood to have improved materially (although if a luminaire has smart cell technology in use, replacement of the luminaire and/or PE cell could probably be reactive only, assuming reliable smart cell technology/data)

- 2.3.1(f) *drafting amended to include '...replace or repair luminaires in accordance with industry best practice as agreed to with the public lighting customer or at least 3 time per year'*

Similar to the above, this clause needs to specifically break down the requirements in terms of the technology used for the individual luminaire/lighting scheme.

If a lighting scheme is using legacy technology (e.g. high pressure sodium), the three times per year requirement should remain.

If a scheme is all-LED, a less frequent inspection schedule may be acceptable.

If a scheme is smart-cell enabled, reactive maintenance may be acceptable, on the proviso smart cell data is timely and reliable.

Concerns with current consultation process

It is noted that, in the Public Lighting Code of Practice Review Consultation Paper (20 August 2025), it is stated "*We will not remake the Public Lighting Code of Practice or introduce any new obligations.*"

This is concerning, because it is effectively stating the ESC has already decided the Public Lighting Code will not be re-made (albeit with updates), nor will any new obligations be introduced, despite there being concerns flagged with the ESC over public lighting operational issues over several years.

For example, and further to the above, it is considered critical that additional requirements be included in relation to oversight of major road patrols, and how a distributor can classify a public lighting fault as "complex".

As an example of the practical implementation on these elements, requirements similar to the following were envisaged:

Oversight of major road patrols

A distributor must implement a process to ensure that major road patrols are actually being conducted, and in an effective manner (whether the major road patrols are conducted by the distributor themselves, or a service provider).

An example of how this requirement could be met would be the distributor conducting and documenting spot checks at night of corridors where a major road patrol was imminent. If, after the major road patrol occurs, less than 80% of the earlier identified faults in the spot check were observed by the patrol, this would indicate issues with the patrol requiring follow up.

Definition of a complex fault

A "complex" fault needs to be codified to mean a fault relating to the electricity network/infrastructure resulting in a public light not being able to be fixed within standard timeframes.

In other words, a light being situated on a major road with access during the day being difficult due to prevailing traffic conditions, should not be a valid definition of a "complex" fault.

This change would result in distributors having processes in place to ensure that faults on major roads are able to be dealt with promptly (effectively, that a distributor has standard BAU processes in place for public lighting repairs to occur overnight, not just during the day).

Remaking the Public Lighting Code (i.e. keeping the Code separate from the Electricity Distribution Code of Practice)

Public lighting is critical both for road safety and safety generally. As such, it is arguable that it is preferable to have public lighting remain as a separate code to the Electricity Distribution Code of Practice. This is particularly the case given that the asset management sections of the PLC do not currently exist within the Electricity Distribution Code of Practice, and would need to be added to it. The strong recommendation is that the PLC remain separate, with references made to the relevant section(s) of the Electricity Distribution Code of Practice, where necessary.

It is noted that New South Wales continues to have a standalone version of their Public Lighting Code.

Summary of issues & recommendations

Proposed change to clause 2.3.1 (c)	Changes to this clause need to be dependent on technology used for legacy luminaires, 4 yearly replacement cycle should be maintained. For LED, a longer replacement cycle may be appropriate. If a light is smart cell enabled and the data is reliable, reactive maintenance/replacement (only) may be acceptable.
Proposed change to clause 2.3.1 (e)	This proposed change relates to PE cells. It's not clear if PE cell technology has improved to make the 8-yearly replacement cycle inappropriate. Unless PE cell technology has changed, the 8-year PE cell replacement cycle should be retained. However, if a light is smart cell enabled and the data is reliable, reactive maintenance/replacement (only) may be acceptable, as this data should reflect a faulty PE cell.
Proposed change to clause 2.3.1(f)	This clause needs to be redrafted to stipulate different requirements for different luminaire technology types. Similar to the above points, legacy lighting (i.e. MV or HPS) still needs to be checked three times per year. If a scheme/corridor is all-LED, a less frequent inspection may be okay, and if a scheme/corridor is smart cell enabled, reactive maintenance (only) may be okay, assuming an accurate data stream.
Oversight of major road patrols	A new clause needs to be created & implemented requiring distributors to have a process in place to ensure the major road patrols are actually being conducted and in an effective manner (either by the distributor directly, or their service provider).
Definition of a complex fault	A new clause needs to be created & implemented clarifying that a "complex" fault can only be deemed such if it relates to the electrical network itself, or there is a genuine access issue to an asset (i.e., heavy traffic on the road in question is not a valid reason to define a fault as complex; distributors should have processes in place for attending to faults on busy roads in a timely manner).
Requirement to be at an adjacent property for compensation payment	The requirement to be an occupier of an adjacent property In order to be eligible for the GSL compensation payment should be

	removed. Effectively, the first person to report the faulty light should be eligible for the GSL payment, regardless if they occupy the adjacent premise or not. This change would: • Incentivise reporting of faulty lights by members of the public • Encourage distributors to ensure repairs are completed within GSL timeframes, improving safety outcomes
No remaking of the Public Lighting Code of Practice or introduce any new obligations under current ESC consultation process	This is considered problematic, because it may be preferable to remake the Public Lighting Code (with updates) but keep it as a separate document. This is because public lighting is an essential service in terms of road & personal safety, when natural light is insufficient. Having the PLC separate from the Electricity Distribution Code of Practice makes the information and requirements easier to access for all stakeholders, especially members of the public. Additionally, there is clearly a need for some new obligations to be introduced, given existing problems with how some distributors are managing major road patrols, defining faults, as well as to encourage both reporting by the public and efficient repairs by distributors.