

Electric Power Engineering Centre (EPECentre) Green Grid Submission on:

Electricity legislation

Consultation on the application of electricity legislation to secondary networks and publically accessible charging infrastructure for electric vehicles

**MBIE Consultation Document
July 2016**

(Responses in Green)

- Question 1:** Do you agree that owners of secondary networks should be required to belong to the EGCC? Please explain why or why not.
- Question 2:** Do you agree that there should be consistency in the application of the Code, Part 3 of the Electricity Industry Act, and the LFC and levy regulations for owners of secondary networks where their activities are similar to those of a local distribution network owner? Please explain why or why not.
- Question 3:** Do you think having a consistent approach to classifying charging infrastructure is necessary and/or beneficial? Do you think they should be classified differently for access rights and electrical safety purposes? Please explain why or why not.

A consistent approach to classifying charging infrastructure would be beneficial. For simplicity and clarity, we suggest access rights and electricity safety requirements should fall under the same classification.

- Question 4:** Do you think, for access right purposes, charging infrastructure should be categorised as works or electrical installations? Please explain why you consider it to be one or the other.

The classification should be as electrical installation rather than works. Paragraph 52 states that “Publically accessible EV charging infrastructure is being established in commercial buildings, car parks (including in shopping malls and supermarkets), service stations, holiday parks and alongside roads.” All these locations, except for alongside roads, are locations on private property. Categorization as electrical installation is most appropriate for private property. For charging infrastructure on private property, access for the electricity operator would presumably be determined by agreement between the property owner and the electricity operator.

Question 5: Do you think the provision of national information and guidance from the NZTA would be sufficient to clarify the access rights as they apply to charging infrastructure? Please explain why or why not.

Access rights have safety implications, and so should be managed under the Electricity (Safety) Regulations.

Question 6: For the purpose of electrical safety, if all publically accessible EV charging infrastructure was to be categorised, do you think it is better categorised as works or electrical installations? Please explain why you take this view.

Publically accessible EV charging infrastructure is better categorized as electrical installations. This is to ensure that the charging infrastructure will apply, and will be consistent with, the *technical* and *safety* requirements of national and international Standards referred to in the Electrical (Safety) Regulations 2010.

Specifically, the Electrical (Safety) Regulations lists AS/NZS 3000:2007: Electrical installations (known as the Australian/New Zealand Wiring Rules) as an official standard. The latest Draft AS/NZS 3000:2016 includes a new Appendix P entitled *Guidance for installations and location of electrical vehicle socket-outlets and charging stations*. This Appendix refers to the charging infrastructure as an “installation”. In this Standard, Clause 1.4.53, Note 2, clarifies that “Unless the context otherwise requires, the term ‘installation’ is used to mean electrical installation.” The definition of electrical installation in this Standard is consistent with the definition of electrical installation in the Electricity Act 1992. Thus the categorization should be consistent with Draft AS/NZS 3000, assuming the adoption of this Draft in the near future under the Electrical (Safety) Regulations.

Furthermore, AS/NZS 3000 Appendix P also refers to international Standards that should be complied with such as Clause P1.7 which states that “EV charging stations should be designed in accordance with IEC 61439-7”, which is entitled *Low-voltage switchgear and controlgear assemblies – Part 7: Assemblies for specific applications such as marinas, camping sites, market squares, electric vehicles charging stations*.

AS/NZS 3000, Appendix P, is also expected in the future to cover safety and technical issues relating to bi-directional energy transfer (i.e. also include exporting power into the LV network, otherwise referred to as Vehicle-to-Grid or V2G).

Question 7: For the purposes of electricity safety, what consequences would categorising all charging infrastructure as either works or electrical installations have? Please explain the consequences and impacts you think this would have if charging infrastructure was classified as works and if it was classified as electrical installations.

This has been discussed in the answer above.

Question 8: How do you think electrical safety for charging infrastructure can best be addressed? Please explain any measures you have identified and why you think they are needed.

Refer to Question 6 answer.