4 September 2026

Energy Efficiency and Conservation Authority
PO Box 388
Wellington 6140

By email to: star@eeca.govt.nz

Dear EECA team,

Consultation Paper— *Proposed energy flexibility regulatory requirements for electric vehicle chargers*

Electricity Networks Aotearoa (ENA) welcomes the opportunity to make a submission to the Energy Efficiency and Conservation Authority (EECA) on its consultation paper on *Proposed energy flexibility regulatory requirements for electric vehicle chargers* (the paper).

ENA is the membership organisation representing all 28 electricity distribution businesses (EDBs) that distribute electricity across Aotearoa (EDBs represented are listed in Appendix A).

EDBs employ over 7,800 people, deliver energy to more than two million homes and businesses, and have spent or invested $6.8 billion in network assets over the last five years. ENA harnesses members' collective expertise to promote safe, reliable, and affordable power for our members' customers.

ENA strongly supports the introduction of minimum smart-functionality requirements for EV chargers sold in New Zealand. Widespread uptake of interoperable and controllable chargers will help consumers participate in managed-charging arrangements, support the efficient integration of EVs into electricity networks, and reduce the need for additional network investment to meet avoidable peaks in demand.

ENA considers that the requirements should be simple, proportionate and focused on the outcomes required from smart charging. Manufacturers should have as much freedom as possible to innovate and offer products that meet customers' needs, while ensuring that charging demand can be managed to minimise its impact on electricity networks and, ultimately, costs for all electricity consumers. Wherever practicable, the rules should align with internationally supported standards and existing product capabilities, avoiding unnecessarily prescriptive or New Zealand-specific requirements that could increase costs, limit product availability or inhibit future innovation.

If you have any questions about ENA's submission please contact Richard Le Gros, Policy and Innovation Manager (richard@electricity.org.nz).

Yours sincerely

Richard Le Gros

Policy and Innovation Manager

Appendix A: ENA Members

Electricity Networks Aotearoa makes this submission along with the support of its members. Listed below are the lines companies represented by ENA:

- Alpine Energy
- Aurora Energy
- Buller Electricity
- Centralines
- Counties Energy
- EA Networks
- Electra
- Electricity Invercargill
- Firstlight Network
- Horizon Networks
- MainPower
- Marlborough Lines
- Network Tasman Limited
- Network Waitaki
- Northpower
- Orion New Zealand
- OtagoNet – represented by PowerNet
- Powerco
- Scanpower
- The Power Company – represented by PowerNet
- Top Energy
- The Lines Company
- Unison Networks
- Vector
- Waipa Networks
- WEL Networks
- Wellington Electricity
- Westpower

Appendix B: ENA Consultation Response

1. **Do you support excluding DC chargers and AC/DC combination chargers?**

Yes, ENA supports the proposed exclusion.

2. **Do you support the AC charger exclusion of above 23kW?**

Yes, ENA supports the proposed exclusion.

3. **Are there any other specific types of EV chargers that should be excluded from the requirements or a component of the requirements (e.g. labelling)?**

ENA does not support any further types of EV chargers being excluded from the requirements.

4. **Do you agree that at this time no specific requirements should be set for the EV discharging component of bi-directional chargers? If you disagree, what requirements should be set?**

ENA agrees that there is no need for specific requirements for the export capabilities of bi-directional EV chargers at this time. As exporting devices these will already be required to comply with relevant regulations (Electricity Safety Regulations) and standards (e.g. AS/NZS 4777 suite) and we see need need for further obligations at this time.

5. **Do you agree that the communication should be direct with the EV charger?**

ENA agrees that the requirement to support communication should apply directly to the EV charging unit.

6. **Do you support the use of proprietary communication protocols, if there is public documentation enabling the development of system to control the EV charger? Are there any other requirements that would have to be implemented, e.g. requiring it to be free?**

ENA supports allowing proprietary communication protocols where sufficient documentation is publicly available to enable an independent third party to communicate with and control the EV charger. Access to that documentation should not be subject to unreasonable cost or licensing restrictions, as this could undermine interoperability and create vendor lock-in. ENA's preference remains for open and standardised protocols wherever practicable.

7. **Do you agree that EV chargers should be able to employ other communication protocols, external communication interfaces, or approaches in addition to a protocol and external communication interface that meets the requirements?**

ENA agrees that the proposed requirements should not restrict EV chargers from supporting any other communications protocols, interfaces or communication or control methodologies that manufacturers wish to include.

8. **Would this approach work for other products if regulated for energy flexibility, e.g. air conditioners, hot water systems?**

Yes. The proposed communications requirements should also be applicable to other energy-flexible devices, such as air conditioners and hot water systems, subject to any necessary adjustments for their different technical and operational characteristics.

9. Do the product responses listed need to be more detailed (e.g. specifying response time, or the granularity of increasing or decreasing power input, i.e. to a resolution of 1 ampere increments)?

ENA supports keeping the required product responses relatively simple, but considers that the functionality should include the ability to apply a specific charging setpoint, schedule or profile, rather than being limited to relative instructions to start, stop, increase or decrease power import. For example, a charger could be instructed to charge at specified rates during specified periods, subject to any lower local or safety-related limit. Any prescribed response times or granularity should be technically justified and aligned with relevant international standards and commonly supported communications protocols.

10. Are there any other product responses EV chargers should be required to provide (noting randomised delay/ramp rate and exchange of information covered below)?

ENA is not aware of any additional product responses that should be required. The proposed start, stop, increase and decrease functions appear sufficient to enable charging demand to be managed within electricity network constraints.

11. Do you agree with the exclusions? Are there any that need to be added?

ENA is not aware of any further product responses that should be mandated. Subject to including the ability to apply a specific charging setpoint, schedule or profile, the proposed response set should be kept simple and outcome-focused.

12. Do you agree with the response that the EV charger must deploy if it becomes disconnected from the separate device, entity, or system?

ENA generally agrees that maintaining the most recently valid charging settings following a communications failure may be appropriate. EECA should clarify that this includes any previously loaded charging schedule or profile, rather than only the charging rate applying immediately before disconnection.

However, appropriate fail-safe behaviour may differ between residential, workplace and fleet installations. For example, maintaining the previous charging state across multiple workplace chargers following the loss of a local load-management system could result in aggregate demand exceeding the installation's capacity. The requirements should therefore allow fail-safe or default behaviour to be configured for the particular installation and use case. Any manual local override should remain operable without remote communications.

13. Do you agree that the consumer should be able to override any product response that has been implemented (noting the exclusions)?

ENA agrees that consumers should generally retain the ability to override external control, including through a local override that does not depend on connectivity to a remote management system. However, the override function could be configurable where a consumer has knowingly chosen a tariff, managed-charging service or flexibility arrangement under which override rights are limited or

temporarily disabled. Any such arrangement should be transparent, expressly agreed by the consumer, and subject to applicable safety and consumer-protection requirements.

14. Do you agree that randomised delay/ramp rate should only be required for the responses listed above? Are there any that should be excluded? Are there any that should be added?

ENA agrees that avoiding large coincident changes in charging demand is an important system and network objective. However, we are not persuaded that randomised delay or ramp-rate limiting needs to be implemented within every charger.

Similar outcomes may be achieved through dynamically updated charging schedules or profiles, aggregator control and appropriately designed tariffs or flexibility arrangements. These approaches may provide more effective management of sustained network constraints than a one-off delay or ramp rate. Randomised delay and ramp-rate functionality also do not appear to be commonly incorporated into all chargers or communications protocols and mandating them could require New Zealand-specific product variants and increase costs.

ENA therefore recommends that the rules specify the outcome to be achieved and allow a range of compliant approaches, rather than mandating either function within every charger.

15. Do you agree that EV chargers should have the option to comply with randomised delay or ramp rate?

ENA does not support requiring every charger to implement randomised delay or ramp-rate limiting. If EECA retains a specific requirement to manage coincident changes in charging demand, suppliers should be able to comply through any of the following:

- randomised delay;
- ramp-rate limiting; or
- a dynamically updated charging schedule or charging profile that achieves an equivalent outcome.

This would provide suppliers with flexibility to use functionality already supported by their chargers and communications protocols.

16. Is ramp rate a suitable alternative to randomised delay? Please explain.

Ramp-rate limiting can, in principle, provide an alternative to randomised delay. At sufficient scale, both approaches can reduce large coincident changes in demand and may achieve broadly similar distribution-network outcomes. That does not mean either function should be mandated within every charger, particularly where an equivalent outcome can be achieved through dynamic charging schedules, profiles or external control systems.

17. Do you agree with the exclusions? Are there any other scenarios that should be excluded?

If EECA retains the proposed randomised-delay or ramp-rate requirement, ENA generally agrees with the proposed exclusions. In particular, the requirement should not delay an immediate reduction in charging needed to prevent an overload or address a safety issue. More generally, an outcome-based compliance

pathway should reduce the need to prescribe an extensive set of exclusions for individual technologies and use cases.

18. Can you provide detail on how to further refine the exclusion for solar/battery power draw use-case?

ENA questions whether a separate, technology-specific exclusion for behind-the-meter solar generation or battery storage is necessary. The broader managed-charging capabilities proposed in the consultation should allow charging behaviour to be coordinated with generation, storage and other load behind the ICP.

An outcome-based requirement would allow a charger or site energy-management system to increase charging where this does not increase demand from the distribution network, without requiring detailed regulatory rules for particular technology configurations. If EECA retains the exclusion, it should apply where the relevant system can establish that the change in charging demand will be met entirely behind the ICP.

19. Are there any EV chargers that should not have to comply with the randomised delay/ramp rate limit requirements?

ENA's preference is that no class of charger should be required to incorporate randomised-delay or ramp-rate functionality specifically, provided an equivalent outcome can be achieved through a dynamically updated charging schedule or profile or another compliant control mechanism. If EECA nevertheless mandates these functions, it should provide an alternative compliance pathway for chargers controlled through systems that demonstrably manage coincident changes in demand.

20. Do any of the requirements need to change, e.g. maximum 600-second duration or ramp rate limit of 0.75kW?

ENA does not have a firm view on the proposed 600-second duration or 0.75 kW ramp-rate limit. A delay or ramping period of this kind may assist with short-term coincident load changes, particularly following restoration after an outage, but is likely to be less effective in managing sustained periods of network constraint than dynamic charging schedules or ongoing charging limits.

Any prescribed parameters should be supported by technical evidence and consultation with charger manufacturers, aggregators and EDBs. They should also be capable of adjustment as EV uptake, technology and network conditions evolve.

21. Do you support the idea that the maximum randomised delay/ramp rate can be changed post supply?

Yes, where randomised-delay or ramp-rate settings are used, they should be adjustable after supply. The same principle should apply to any dynamically updated charging schedule or profile used as an alternative compliance method. EECA should clarify whether adjustment must be possible through the charger's remote communications interface or whether local configuration is sufficient.

22. Should the EV charger retain the data for a period? If so, is 30 days sufficient?

ENA is ambivalent to the duration of data retained in the EV charger – this is not critical from a distribution network management perspective.

23. Is there any other information the EV charger should make available?

From an electricity network perspective, useful information includes the charger's current active power demand, maximum available charging rate, current charging limit and whether a consumer override is active. ENA does not consider that substantially more detailed information should be mandated unless there is a clearly identified use case.

24. Are the proposed resolutions of values, e.g. nearest second, nearest watt-hour and ±2%, reasonable? Should it be something else?

ENA has no particular concerns or input to make on the proposed resolution of values, but as a general principle EECA should avoid requiring a level of precision beyond what is required for the obvious 'smart' use-cases. If possible, requirements should align with, or at least not exceed, comparable international norms and standards.

25. What units should the remaining available power be reported in, e.g. kW or amperes per phase?

ENA does not consider that an EV charger should be required to determine the remaining load available at the ICP. Doing so would generally require information about total site demand and, in many cases, additional monitoring equipment that is external to the charger.

Where this information is available from a site energy-management or monitoring system, kW is likely to be the most useful measure for network and managed-charging purposes. Amperes per phase may also be useful for installer configuration and managing phase-specific circuit limits. The rules should not, however, imply that every charger must independently determine or report dynamic available capacity at the ICP.

26. The cumulative electrical energy imported is proposed to be defined by the EV charger, meaning the reference point for the cumulative value may vary by charger. Do you support this approach, or should the rules prescribe the reference point for the cumulative value?

ENA would prefer consistency in the definition of cumulative energy where the information will be exchanged between different systems. At a minimum, the reference point should allow a third party to determine the total energy transferred during a charging session. ENA does not consider this requirement should extend to determining the remaining capacity available at the ICP.

27. Do you support the requirement for EV chargers having inbuilt load management or being supplied with a device to enable this?

ENA does not support requiring every charger to have inbuilt dynamic load management or to be supplied with an additional load-management device. This would add cost even where the installation does not require that functionality.

As a minimum, a charger should allow an installer to configure a maximum charging current appropriate to the dedicated circuit and installation. Customers with more complex requirements, including multiple chargers or dynamic management of total site load, should remain able to adopt appropriate monitoring equipment, load-management systems or site energy-management systems.

28. **Should the overload management requirement be limited to EV chargers used in residential settings? If so, how should the scope be limited, noting that the requirements apply at point of supply, not install?**

ENA does not consider that a mandatory dynamic overload-management requirement should apply to either residential or non-residential chargers. Charger models described as "residential" may also be installed in workplaces or fleets, making a product-based distinction difficult to apply at the point of supply.

The minimum requirement should instead be an installer-configurable charging-current limit. More sophisticated monitoring or energy-management functionality can then be selected where the particular installation requires it.

29. **Should the requirement to not overload focus on:**

- **The local circuit (defined at point of install);**
- **The Installation Control Point; or**
- **Both?**

ENA does not support requiring every charger to dynamically determine and manage available capacity at either the ICP or the local circuit. The charger should support an installer-configured maximum charging current, allowing it to be set at a level appropriate to the dedicated circuit and installation.

Dynamic management of total load at the ICP is more complex and normally requires additional monitoring hardware or a site energy-management system. It should therefore remain an installation-specific solution rather than a mandatory feature of every charger.

30. **Do you support requiring that EV chargers must be able to receive software updates but, subject to consumer laws, not be able to receive a software update that would prevent it from meeting the requirements?**

Yes. ENA supports this requirement. A software update should not be capable of removing or materially degrading functionality required for compliance with the rules, including interoperability and controllability.

31. **Do you support the proposed labelling and information requirements?**

Yes. ENA supports the proposed information and labelling requirements. In particular, clearly identifying the supported communications protocol and version should assist consumers and third parties to understand the charger's interoperability capabilities.

32. **Is there additional information that needs to be published to help facilitate the use of an EV charger in an energy-flexible way, e.g. the exact implementation of a protocol such as OCPP 1.6?**

ENA supports sufficient technical information being publicly available to enable third-party systems to make practical use of the charger's interoperability functions. EECA should avoid requiring unnecessary consumer-facing technical detail where the same information could instead be provided through product documentation or an online technical specification – provided these are easily locatable/accessible and made available in an enduring way.

33. **Do you have any feedback on what questions or information should be collected in the prescribed form?**

ENA has no additional information requirements to suggest.

34. **Do you have any feedback on the defining scope of families of models?**

ENA supports the proposed approach to families of models where the models share the characteristics material to compliance. Wherever possible, the compliance burden should be kept as low as possible and opportunities to streamline testing and certification for materially equivalent models should be available.

35. **Do you have any feedback on the software-version definition for families?**

As per our response to the previous question, where changes between software versions are immaterial to the core requirements then testing and certification obligations should be kept to a minimum.

36. **Do you have any concerns with the proposed approach?**

ENA has no concerns with the proposed approach.

37. **Do you support the rules providing a pathway to enable new approaches to meeting the requirements of the proposed rules?**

Yes. ENA supports an outcome-based pathway that provides OEMs with the greatest degree of flexibility possible to innovation and iterate products to meet the needs of customers, while preserving the core mandated functions.

38. **Do you support the rules specifying in detail a strict pathway that will meet the requirements of the rules? If a strict pathway is introduced (as one of the pathways), what protocols and versions of protocols should it specify, e.g. OCPP 1.6, OCPP 2.0.1 or OCPP 2.1?**

ENA also supports a defined or 'strict' compliance pathway. Providing a recognised deemed-to-comply route should reduce uncertainty and compliance cost for suppliers while the alternative outcome-based pathway preserves scope for innovation. ENA does not have a strong view on which specific OCPP version should be prescribed and recommends that this be determined with relevant technical and industry expertise.

39. **Should certain protocols not be allowed, e.g. setting a minimum of OCPP 2.0.1, which would exclude OCPP 1.6?**

ENA does not consider that older protocol versions should be excluded solely because a newer version exists. The relevant test should be whether the protocol can securely and reliably provide the functionality required by the rules. EECA should avoid unnecessarily limiting the range of compliant products where an existing protocol remains fit for purpose.

40. **Should the strict pathway be developed with industry, and would you like to be part of that group (if this approach is taken)? Would this approach work for other products if regulated for energy flexibility, e.g. air conditioners or hot-water systems?**

Yes. ENA strongly supports development of the detailed compliance pathway with industry. The same general approach — an outcome-based requirement supported by a defined compliance pathway — could also be suitable for other flexible electrical loads such as hot-water systems and air conditioners.

41. Are there any other requirements that EV chargers should have to meet under the rules?

ENA does not propose any additional mandatory functionality at this time. Our preference is for the initial requirements to remain focused on the minimum functions necessary to ensure that significant flexible loads such as EV charging can be managed efficiently within electricity network constraints. Additional functionality can be considered in future if a clear need emerges.