

4 September 2026

EECA
PO Box 388
Wellington 6149

Proposed requirements for EV chargers

1. Thank you for this opportunity to make a submission on EECA's consultation on the proposed requirements for EV chargers.

Background

2. Orion New Zealand Limited (Orion) owns and operates the electricity distribution infrastructure in Central Canterbury, including Ōtautahi Christchurch. Our network is both rural and urban and extends over 8,000 square kilometres from the Waimakariri River in the north to the Rakaia River in the South; from the Canterbury coast to Arthur's Pass. We deliver electricity to more than 235,000 homes and businesses and are New Zealand's third largest Electricity Distribution Business. Orion and its various predecessors have been providing this essential service to the region for close to 120 years.

General comments

3. As the owner of a distribution network, Orion is focused on the potential scale of EV charging load on our network and opportunity to mitigate this through flexibility. Orion considers it important that EV chargers have the capability to communicate with the energy system.
4. While Orion expects network pricing incentives, rather than direct control, to be the primary mechanism for shifting EV charging and export away from peak periods, the scale of EV load is expected to be significant. Orion recommends the adoption of nationally standardised protocols (such as IEEE 2030.5/CSIP-AUS) that give customers the opportunity to opt in to third-party management of EV charging. This will enable customers to benefit from simple and

affordable smart-charging services while also enabling networks, retailers and other flexibility providers to access more dynamic flexibility.

5. Orion supports the approach that no specific requirements should be set for the EV discharging component of bi-directional chargers at this stage but recommends that consideration is made to ensure that future implementation is facilitated or at the very least, not inhibited by the proposed requirements. Management of demand and export will enable distribution networks to reduce or defer network investment, specifically due to additional demand introduced by EVs.
6. With those comments on mind, overall, we support many of the proposals in the Consultation Document. In particular, we support the proposed scope exclusions for DC and higher-capacity AC chargers at this stage, the requirement for direct communications with EV chargers, consumer override rights, the proposed product response and randomised delay/ramp-rate requirements, built-in or supplied load management capability, software update requirements, and the proposed labelling and information obligations. We also support a pathway for alternative approaches to compliance, provided this does not undermine the need for a nationally agreed open communication protocol that enables flexibility services.
7. However, we are disappointed that EECA will not have a mandate to specify cyber security requirements, and that the Bill giving the Minister power to make the rules is not expected to address this. As the Consultation Document states *“Unauthorised use of EV chargers can create poor outcomes for individual users (e.g. EVs not being charged) and at a wide scale jeopardise energy security.”*
8. And, as we noted in our submission to MBIE last year,¹ we consider that cyber security requirements must be included in legislation mandating the use of smart chargers. We do not think that it is sufficient to state that *“To mitigate this, further regulation may be required in the future prompted by the need to align with international standards.”* Kicking the can down the road will likely threaten confidence in smart chargers and encourage customers to rely instead

¹ See <https://www.oriongroup.co.nz/assets/Our-story/Submissions/MBIE/Orion-submission-proposals-to-support-uptake-of-smart-EV-charge-points-August-2025.pdf>

on trickle charging.

Concluding comments

9. Thank you again for the opportunity to provide this submission.
10. If you have any questions please contact Vivienne Wilson, Policy Lead,
Vivienne.wilson@oriongroup.co.nz, (03) 363 9898.

Yours sincerely

Vivienne Wilson

Policy Lead



Consultation Questions

No.	Question	Answer
1	Do you support excluding DC chargers and AC/DC combination chargers?	Yes, we support this approach for the time being, but we envisage that soon the rules will need to provide for residential DC charging (which will need to include V2G).
2	Do you support the AC charger exclusion of above 23kW?	Yes, we support this approach.
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)?	No comment.
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?	We are comfortable with no specific requirements being set at this stage. However, the ability to limit EV discharging will be needed in the not-too-distant future, particularly if network hosting capacity becomes constrained. We also think that customers will want to be able to get the greatest benefits from bi-directional EV chargers by allowing them to discharge at the most valuable times. For example, avoiding discharge during periods of high solar export. As such, whatever requirements are set within this framework should not inhibit the future implementation of EV discharging.

No.	Question	Answer
		We recommend reviewing the need for EV discharging requirements at least every 12 months, with a view to supporting the implementation of dynamic operating envelopes as V2G becomes more common.
5	Do you agree that the communication should be direct with the EV charger?	Yes. Flexibility from EVs will support electricity networks to avoid or defer network investment.
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?	At a minimum, all EV chargers covered by the proposed rules should support OCPP 1.6 or another agreed industry-standard protocol. Manufacturers may also include additional proprietary communication protocols. Given the potential scale of EV charging load and the value of flexibility to customer, networks and the wider energy system, EV chargers should support nationally consistent and interoperable communications capability that allow customers to choose who manages their charging.
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?	Yes we agree with this but note our comments above.

No.	Question	Answer
8	Would this approach work for other products if regulated for energy flexibility e.g. air conditioners, hot water systems?	Potentially, if it presents the best value for distribution networks, and for customers. It is also important to ensure that requirements do not inadvertently reduce customer choice or materially increase costs.
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?)	No, we do not consider that the product responses need to be more detailed than listed on page 13 of the Consultation Document.
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)?	We suggest considering whether the ability to meet a power limit could also allow for the possibility of dynamic operating envelopes. This does not imply that participation with dynamic operating envelopes will be mandatory in future but this capability could provide the option for customers to participate.
11	Do you agree with the exclusions? Are there any that need to be added?	Yes, we agree with the exclusions proposed.

No.	Question	Answer
12	Do you agree with the response that the EV charger must deploy if it becomes disconnected from the separate device, entity, or system?	Yes, we generally agree with this response. However, the requirement should retain some flexibility, as several issues require careful consideration. For example, a widespread communications outage affecting many chargers could create network challenges if those chargers all switch on at the same time. Another scenario is where there is a disconnection at 1am when charging was currently off but due to start at 3am. The charger must go back to its scheduled state / user settings / contracted limits. Another exception is where customers have contracted availability for utilities to control the EV charger. In this case, the charger must default to a lower maximum charge rate (say, 2kW) until it is reconnected. We recommend that EECA consider mandating that EV chargers must have the capability to be configured in such a way as a part of any national standard for opt-in direct control by utilities.
13	Do you agree that the consumer should be able to override any product response that has been implemented (noting the exclusions)?	Yes, we agree with this approach. Research shows that the consumer values the ability to override product responses. This is borne out in the EECA Report <i>“Demand flexibility: Exploring consumer understanding and perceptions of demand flexibility”</i>² For example, <i>“EV owners are particularly motivated by the prospect of more affordable energy that can be used to run their car for less. However, this is often accompanied by reservations about allowing a smart system or a power company to take control of when their vehicle charges and how quickly. The primary concern is not having enough battery to drive when they need to. But other concerns exist about the way in which power companies could interfere with their car’s</i>

² <https://www.eeca.govt.nz/assets/EECA-Resources/Research-papers-guides/Flexible-Electricity-Use-Consumer-research-July-2026-v2.pdf>

No.	Question	Answer
		<i>systems, battery or charger.”</i>³ We also note this is a key aspect of the UK Electric Vehicles (Smart Charge Points) Regulations 2021.⁴ That said, consumers will also need to be aware of any contractual obligations they have entered into with retailers or other parties, where they have agreed to limit their ability to override any product response or other control. It may also be useful to log over-ride events so that flexibility providers can tailor offerings according to customer needs.
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?	We agree with your current proposal because it also includes stop/decrease functions. We are pleased that you are excluding the situation when the EV charger is only importing power from a source on the customer side of an ICP eg, solar or batteries. As you have indicated, randomised delay on its own is unlikely to be sufficient.
15	Do you agree that EV chargers should have the option to comply with randomised delay or ramp rate?	Yes, we agree with this proposal.
16	Is ramp rate a suitable alternative to randomised	In our view, randomised delay is better for maintaining voltage and frequency after a power

³ See page 36.

⁴ See regulation 10.

No.	Question	Answer
	delay? Please explain.	outage when other load is turning on at the same time.
17	Do you agree with the exclusions? Are there any other scenarios that should be excluded?	Yes, we agree with the exclusions proposed.
18	Can you provide detail on how to further refine the exclusion for solar/battery power draw use-case?	No comment.
19	Are there any EV chargers that should not have to comply with the randomised delay/ramp rate limit requirements?	As noted on page 14 of the Consultation Document, chargers operating solely from onsite generation or storage, and not drawing from the network, should be excluded from the randomised delay and ramp-rate limit requirements. For larger sites, depending on the chargers involved, it may also be appropriate to exclude chargers where ramp-rate or delay requirements are already managed through a site-level control platform, such as: • a building energy management system; • a fleet management platform; or • a local load management system. In those cases, an additional charger-level randomised delay may be unnecessary and could undermine the effectiveness of the existing site-level controls.

No.	Question	Answer
20	Do any of the requirements need to change e.g. Maximum 600 second duration, ramp rate limit of 0.75kW?	In light of the explanations included in the Consultation Document, we consider that the requirements proposed seem reasonable.
21	Do you support the idea that the maximum randomised delay/ramp rate can be changed post supply?	As a general proposition, Orion supports the ability for maximum randomised delay and ramp-rate settings to be modified post supply provided the following concerns can be addressed: • Randomised delay and ramp-rate settings protect distribution networks. If these settings are changed distribution networks need to have visibility over the types of changes proposed and potentially a veto right: • There should be a prohibition on subsequently changing these settings to zero. With no such prohibition a change of this nature could defeat the purpose of protecting voltage/frequency after a power outage.
22	Should the EV charger retain the data for a period? And if so is 30 days sufficient?	For distribution networks, we consider that retention of data for 30 days is sufficient. However, we suspect that EV owners may want data to be retained for a longer period.
23	Is there any other information the EV charger should make available?	Fault/error codes, voltage/power quality data, over-ride status would be useful to distribution networks if available and may be relatively easy to record.

No.	Question	Answer
24	Are the proposed resolutions of values e.g. nearest second, nearest watt-hour, +-2% reasonable, should it be something else?	No comment.
25	What units should the remaining available power be reported in e.g. kW, amperes per phase?	No comment.
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?	There are pros and cons to this approach. For example, the pros are that its easier and cheaper for manufacturers, it aligns with how existing chargers may already be designed, and there is less regulatory complexity. The cons include that data from different chargers may not be directly comparable, and overall, this makes benchmarking, aggregation, demand-response analysis, compliance reporting, and consumer comparisons more difficult.
27	Do you support the requirement for EV chargers having inbuilt load management or being supplied with a device to enable this?	Yes, we support the requirement for EV chargers having inbuilt load management or being supplied with a device to enable this.
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	Our view is that the overload management requirement should not be limited to EV chargers used in residential settings. We think it will be too complex and costly to set up two different

No.	Question	Answer
	the requirements apply at point of supply, not install.	types of requirements for EV chargers.
29	Should the requirement to not overload focus on: • the local circuit (defined at point of install), • the Installation Control Point, or • both?	No comment.
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, we support this proposal “<i>EV chargers must be able to receive software updates but not be able to receive a software update that would prevent it from meeting the requirements.</i>” We also support the rules set out in the UK charge point regulations which provide that a charge point must be configured so that— (a) it checks, when it is first set up by the owner, and periodically thereafter, whether there are security updates available for it; (b) it verifies the authenticity and integrity of each prospective software update by reference to both the data’s origin and its contents and only applies the update if the authenticity and integrity of the software have been validated; (c) by default, it provides notifications to the owner about prospective software updates;

No.	Question	Answer
		(d) the owner can implement software updates without undue difficulty. As with the UK, the regulations should also provide that a relevant charge point must be configured so that— (a) it verifies, via secure boot mechanisms, that its software has not been altered other than in accordance with a software update which has been validated in accordance with sub-paragraph (3)(b) above; (b) if an unauthorised change to the software is detected, it notifies the owner and does not connect to a communications network other than for the purposes of this notification.
31	Do you support the proposed labelling and information requirements?	Generally speaking, we support the proposed labelling and information requirements.
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 e.g. OCPP 1.6.?	Our preference is that the label should clearly identify the charger's smart features, such as load scheduling and dynamic control capabilities. It should also specify the charger's power rating and connector type to ensure compatibility. In addition, publication of OCPP profiles and vendor extensions, supported ethernet configurations, and default randomised delay / ramp settings are useful for distribution networks.

No.	Question	Answer
		We also suggest that EECA considers whether the label should show whether the charger is 'locked' to a specific vendor platform, and where the purchaser may find more information on the consequences of this requirement.
33	Do you have any feedback on what questions or information should be collected in the prescribed form?	No comment.
34	Do you have any feedback on the defining scope of families of models?	No comment.
35	Do you have any feedback on software version definition for families?	No comment.
36	Do you have any concerns with the proposed approach?	We support the proposed approach which is that EV chargers supplied on or after the day the rules commence must comply with the proposed requirements, even if they were manufactured in, or imported into, New Zealand before that day.
37	Do you support the rules providing a pathway to enable new approaches to meeting the requirements of the proposed rules?	Yes. We support this approach.

No.	Question	Answer
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, OCPP 2.1.	No comment.
39	Should certain protocols not be allowed e.g. setting a minimum of OCPP 2.0.1, which would exclude OCPP 1.6?	Orion prefers OCPP2.0.1 and OCPP2.1, but OCPP1.6 should not be excluded due to its broad adoption. It may be appropriate to include a sunset clause for older protocols (OCPP1.6).
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, hot water systems?	Orion would be keen to participate in a working group if one is formed on this topic. The proposed model could be used for other distributed energy resources. A communication system which enables connection to DER could yield significant benefits to both customers and distribution networks. This must be balanced against cost and freedom of customer choice.
41	Are there any other requirements that EV chargers should have to meet under the rules?	We would support the following inclusions:

No.	Question	Answer
		(a) EV charger support for IEEE 2030.5/CSIP-AUS. (b) A requirement to be able to receive and comply with dynamic operating envelopes. (c) EV chargers should have the capability to share data without it becoming the property of a vendor or platform provider. The information should be confidential but be available to relevant parties to facilitate participation in flexibility opportunities to maximise customer value and support network utilisation.