MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

COVERSHEET

Minister	Hon Simeon Brown	**Portfolio**	Energy
Title of Cabinet paper	Regulating smart electric vehicle chargers	**Date to be published**	5 May 2026

List of documents that have been proactively released		
Date	**Title**	**Author**
April 2026	Regulating Smart Electric Vehicle Chargers	Office of Minister of Energy
1 April 2026	Regulating Smart Electric Vehicle Chargers ECO-26-MIN-0044 Minute of Decision	Cabinet Office
2 February 2026	Regulatory Impact Statement: Smart EV Chargers	MBIE

Information redacted **YES** *(please select)*

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Some information has been withheld for the reason of confidential advice entrusted to the government.

In Confidence

Office of the Minister for Energy

Cabinet Economic Policy Committee

Regulating smart electric vehicle chargers

Proposal

1 This paper seeks agreement to introduce requirements so electric vehicle (EV) chargers with a maximum charge rate above 2.4 kW supplied in New Zealand:

1.1 have minimum smart functionality;

1.2 are labelled to show energy efficiency performance and additional smart functionality characteristics.

Relation to government priorities

2 The proposal in this paper will support reduced electricity bills through increased uptake of smart charging for EVs. Smart EV charging supports the Government's energy affordability and security of supply objectives by helping to reduce the need for expensive electricity generation and network upgrades and mitigating electricity cost increases on households.

3 In April 2024, Cabinet agreed to a Supercharging EV Infrastructure work programme, which included enabling standards to improve consumers' capability to shift home EV charging demand away from network "peaks" [CAB-24-MIN-0123 refers]. In August 2024, Cabinet invited the Minister for Energy to report back on an approach to regulating EV smart chargers [CAB-24-MIN-0315].

4 The proposal supports our commitment on smart charger requirements under the 2025 Australia–NZ 2+2 Climate and Finance Dialogue and supports international alignment with countries like the UK and Australia.

Executive Summary

5 New Zealand's growing uptake of electric vehicles (EVs) risks lifting morning and evening peak electricity demand, driving costly network upgrades that flow through to all consumers. Smart EV charging can shift load to off-peak periods, reduce wholesale price volatility and emissions, and enable a more dynamic, interoperable electricity system. Together, these outcomes support energy affordability and security of supply.

6 To capture these benefits I propose regulating EV chargers supplied in New Zealand with a maximum charge rate above 2.4 kW so they have minimum smart functionality and carry mandatory labels for energy performance and smart features.

7 Cost-benefit analysis shows that $23 million in direct economic benefits could be generated (compared to $4.6 million in costs) over a 10-year period by shifting EV charging away from peak periods through smart charger regulation. This is a benefit to cost ratio of 5 to 1.

8 Without intervention many consumers will continue to inadvertently purchase chargers (above 2.4kW) that are not smart or sufficiently interoperable. Such non-smart chargers will:

8.1 Limit access to cheaper (dynamic), electricity pricing

8.2 Lock consumers into proprietary services - due to devices not being able to communicate (or be interoperable) with all systems

8.3 Increase costs to all households (including those that do not own EVs) due to additional strain on the electricity system.

9 Regulation is required to overcome coordination failure by providing standardisation and certainty in the compatibility, communication and interoperability between smart technology and the electricity grid.

10 Recent research[1] shows the electricity sector sees the lack of standardisation of smart appliances as a key barrier to the development of a smarter electricity system, preventing energy bill and network infrastructure cost savings from being realised.

11 Regulation will provide greater certainty in the technology and system compatibility for the electricity sector to provide dynamic pricing as well as for the electricity network to be able to defer and better plan upgrades. Without regulation, the market will be slower to respond due to coordination failure and this may result in higher infrastructure investments than necessary, and the costs of this will be passed on to all electricity consumers in higher charges.

12 The proposed regulations will not require all consumers to purchase a smart charger. Consumers will still be able to continue to use lower-capacity “trickle” chargers that come with most EVs.

13 This change will be enabled by amendments I am progressing to the Energy Efficiency and Conservation Act 2000 (the Act). Regulations and detailed rules will be developed in parallel to the legislative process to enable timely commencement once the Bill passes.

Background

14 In August 2024 Cabinet agreed to a suite of changes to the EEC Act aimed at delivering a more effective energy efficiency regime that can respond to the

[1] EECA (2026) The-full-potential-of-flexible-electricity-use-in-New-Zealand-Summary-and-insights-report-2026.pdf

latest market developments and support a smarter electricity system [CAB-24-MIN-0315].

15 The EEC Act currently provides for Minimum Energy Performance Standards (MEPS) and labelling requirements to be set in regulations. I am progressing changes to the Act that include:

15.1 enabling requirements for energy flexibility[2] for energy using products and systems (in addition to energy efficiency)

15.2 streamlining the regulatory process to enable the Minister for Energy to set requirements via rules rather than the current use of regulations.

16 While implementation of new regulations and rules relating to smart EV chargers can only progress after amendments to the Act come into force, I propose confirming our policy decision to regulate EV chargers now. This means that regulations and rules can be developed in parallel to ensure the enabling primary legislative provisions are sufficiently broad, and smart charging requirements can come into effect shortly after the changes to the Act come into force.

Smart EV charging can reduce electricity costs for consumers and provide a key enabler for a smarter electricity system

Increasing uptake of EVs can add to peak demand raising costs for all electricity users

17 The uptake of electric vehicles is expected to gradually increase as the economics continue to improve and people and businesses replace their vehicles. A key risk of higher rates of EV adoption is increased demand on the electricity network from charging. This is particularly problematic if that demand is unmanaged and exacerbates peak demand – which generally coincides with times of high household energy use – in the mornings before work hours and in the evenings after work.

18 Increases in peak demand can strain electricity networks, which are designed for daily peaks but mostly operate below this peak capacity. The high electricity draw of fixed EV chargers means unmanaged EV charging can raise these peaks, requiring costly infrastructure upgrades. These costs are passed on to all consumers through electricity bills. These costs being borne by all consumers (including non-EV owners) can create inequities.

19 We are already seeing the effects of increased investment needed in distribution networks, with the Commerce Commission noting bills would rise by about $10 per month from April 2025, partly due to higher levels of

[2] Energy flexibility (sometimes also called demand flexibility) is the ability for consumers to use smart devices, such as EV chargers, to shift their energy use.

investment.[3] This is part of electrification driving increasing investment requirements across electricity generation, transmission and distribution.

Smart EV charging can reduce network expenditure costs…

20 Smart EV charging can significantly offset increases in peak demand by shifting charging to off-peak periods and responding dynamically to price signals. Various studies estimate avoided network costs in the range of $1.1 to 4 billion by 2050.[4] For example, Concept Consulting estimates that managed EV charging could avoid increases in average household peak demand by 40 per cent, worth $220 per household per year, with a present value across all households out to 2050 of $1.7 billion.

21 Smart charging can also reduce the need for expensive fossil fuel generation during peak demand periods by smoothing electricity demand. This can result in lower wholesale prices, less volatility from high peaks, and lower emissions. Smart charging can also make better use of renewable generation, including excess solar generation, that can otherwise coincide with times of traditionally lower demand. Increased use of smart charging complements wider work by the Electricity Authority to improve the effectiveness of price signals through time of use pricing and distribution pricing reform.

…and provide a key enabler for a smarter electricity system

22 Deployment of smart devices such as EV chargers across households is also a key enabler for a smarter electricity system. Electricity retailers and networks are expected to move to more dynamic pricing (i.e. varying electricity prices throughout the day and night, based on real-time factors such as amount and type of supply, and network constraints). However, this relies on a good penetration of grid-connected technologies being smart and interoperable so they can communicate freely between end users and the wider electricity system.

23 Electricity industry engagement shows that standardisation is currently a key barrier to moving to a smarter electricity system. Recent research[5] identified two key points related to this technology barrier:

23.1 the absence of common standards makes it difficult and costly for energy service providers to integrate various devices and systems.

23.2 widespread adoption of smart appliances is essential for seamless integration and automated handling of demand flexibility.

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[3] https://comcom.govt.nz/regulated-industries/electricity-lines/projects/2025-reset-of-the-electricity-default-price-quality-path

[4] EECA estimates savings of $4 billion by 2050. Source: EECA (2024) Residential smart EV chargers and demand flexibility https://www.eeca.govt.nz/insights/eeca-insights/residential-smart-ev-charging-and-demand-flexibility/. Sapere, in the Electricity Networks Aotearoa (ENA)-commissioned modelling, found that smart charging could reduce new EV-related peak demand by over 1.5 GW and avoid up to $1.1 billion in network upgrade costs by 2050

[5] EECA (2026) The-full-potential-of-flexible-electricity-use-in-New-Zealand-Summary-and-insights-report-2026.pdf

24 Regulation is Government's key lever to overcome this market co-ordination failure.

25 If enabled by the charger owner, smart chargers will be able to respond directly to dynamic pricing (rather than simple on- and off-peak pricing used currently) and shift charging automatically by communicating with a provider, avoiding the creation of secondary peaks. Increased uptake of smart chargers will provide a critical mass of manageable electricity load which can further enable the use and adoption of similar smart functionality for other consumer devices (such as for shifting hot water or managing whole of house energy use). Ensuring devices are interoperable will also support increased competition in the energy flexibility market.

Cost-benefit analysis

26 A cost-benefit analysis of the proposed regulations shows that by shifting EV charging away from peak period with smart chargers[6], consumers can benefit by $197 per charger per year in network savings and reduced peaking generation costs. After service provision costs of $96 per year, this results in a net economic benefit of $102 per charger per year. Over 10 years this could deliver $23 million in direct economic benefits compared to $4.6 million in costs, with a benefit cost ratio of 5 to 1.

Smart charging requirements supports regulatory alignment with Australia and other countries

27 Progressing smart charging requirements also supports work to align with Australia. As agreed in the 2025 2+2 Climate and Finance Ministerial Dialogue, we will continue to collaborate with Australia to take a joint approach on smart EV chargers, aligning regulatory to reduce compliance complexity and unlock scalable market opportunities for trans-Tasman providers and local businesses.

28 The UK introduced similar regulations in 2022, and EU countries have varying levels of rules or recommended practices such as smart requirements for publicly funded chargers or being controllable by grid operators.[7] These practices also intend to reduce the impact of EV charging on the grid and lower bills. Regulating now allows us to utilise existing international standards and develop our approach alongside Australia to reduce barriers to accessing our joint market.

There is strong industry support for smart charging

29 The majority of submitters in both the Ministry of Business, Innovation and Employment's (MBIE) 2025 discussion document *Supporting the uptake of Smart Electric Vehicle charging in New Zealand*, and the Energy Efficiency and Conservation Authority's 2022 Green Paper *Improving the Performance*

[6] Assumes a default of 57 percent of total charging demand during peak periods is reduced to 14 percent through smart charging regulations shifting charging times.
[7] For UK Regulations, see: https://www.gov.uk/guidance/regulations-electric-vehicle-smart-charge-points.

of EV Chargers supported introducing smart requirements. The electricity industry is also widely supportive of smart EV charging, with most Electricity Distribution Businesses agreeing managed charging will be important for managing network load.

Proposal to require smart functionalities and labelling for EV chargers

Requiring EV chargers to have smart functionalities

30 In order to capture the benefits of smart EV charging and avoid the potential costs and risks of unmanaged charging, I propose we regulate to require EV chargers (also called "supply equipment"[8]) with a maximum charge rate above 2.4kW to have smart functionalities when supplied. This would mean requiring EV chargers supplied in New Zealand to have two-way communication that allows the charger to easily interact with the system or service providers. Existing chargers that have already been supplied in New Zealand would not be affected.

31 I intend to set specific requirements for what is 'smart' through developing and consulting further on technical rules. Key functionalities that are likely to form part of the requirements of a smart charger are:

31.1 **Interoperability:** the communication protocol used by the charger must be interoperable with other communication systems (e.g., with the vehicle, network owners, demand aggregator, home energy management or battery system).

31.2 **Connectivity / EV charger response:** the charger must be capable of responding to a third-party signal to modify (start, stop, increase, decrease) consumption or export over time.

31.3 **Consumer override:** While smart chargers can be controlled by a third-party under delegation from the user, EV charger owners must retain ultimate control over their charger. They must be able to manually override managed charging.

31.4 **Measurement and visibility:** The charger must be able to measure the quantity of electricity consumed/injected in real time and make this available for the consumer or chosen assignee.

31.5 **Continued charging:** The charger must continue charging even if it is disconnected from the communications network.

32 I intend to set technical requirements for smart EV chargers through rules, which will undergo further public consultation.

[8] Or EVSE, which is a single piece or a combination of equipment, providing dedicated functions to supply electric energy from a fixed electrical installation or electricity supply network to an EV for the purpose of charging. This specification only covers EVSE that have a mains electricity input (230V or 400V, 50Hz).

Mandatory labelling of smart functionalities and energy performance

33 In addition to introducing a requirement that EV chargers with a maximum charge rate above 2.4 kW have certain smart functionalities, I also propose introducing labelling requirements for EV chargers for:

33.1 additional smart functionality characteristics

33.2 energy performance.

34 EECA currently administers mandatory labelling for other energy using appliances and vehicles. This labelling supports informed consumer decision making.

35 For instance, labelling could support consumers to identify the potential benefits of a particular charger where these go beyond the minimum smart requirements, such as V2X charging – where a charger can support bidirectional flow between an EV and a home or the grid.

36 Labelling of energy performance of EV chargers will also support efficient use of energy and minimise network costs. DC EV chargers are highly efficient, however at low loads (70 percent or less) they can be inefficient and, cumulatively, small efficiency gains can lead to large energy savings. Requiring labelling of the energy efficiency of a charger will further support consumer choice and encourage EV charger manufacturers to consider and improve the efficiency of their chargers.

Scope of requirements – EV chargers with a maximum charge rate above 2.4kW

37 I propose enabling the above set of requirements for all EV chargers supplied in New Zealand with a with a maximum charge rate above 2.4kW. These requirements would not affect chargers already in use.

38 Importantly, this means that EV owners are not required to buy smart chargers. They can still use chargers with a maximum charge rate below 2.4 kW (trickle chargers, usually supplied with the vehicle). However, should an EV owner wish to purchase a dedicated charger above 2.4kW (for efficiency, safety or faster charging), then it would be subject to smart requirements.[9]

39 As chargers of different sizes can be used for a range of applications (ie private home, private workplace charging, commercial fleet charging, public charging), the regulations would enable requirements to apply to all chargers, regardless of their use.

40 For chargers above 2.4 kW, the scope of any requirements will be subject to detailed consultation and decisions on any proposed rules. Development of rules will involve consultation and this will include considering whether to further narrow the scope of any requirements by applying to specific sub-classes of chargers and/or excluding others. For example, initially, I intend to

[9] Low-capacity EV chargers (ie 2.4kW or less) essentially draw a similar amount of power as any other household appliance and are not likely to have a significant grid impact.

focus requirements on AC chargers of approximately 7 kW used primarily in household settings to manage evening peaks.

41 Requirements specifically targeting higher capacity DC chargers used in private and public settings could be developed in future. These may also help manage network constraints and up-front grid upgrades that are needed prior to install and avoid the stranded asset risk that proprietary chargers could pose.

Cost-of-living Implications

42 EV chargers with smart functionality can cost more than non-smart chargers for consumers. However, there is significant overlap in the price of chargers.[10] EV owners will still also be able to use standard 3 pin trickle chargers that are supplied with EVs. Suppliers and manufacturers will have additional costs associated with compliance of the regulations – this could also be passed on to consumers. As EV owners' increased demand is contributing to higher peaks and increased network investment, it is appropriate for those same owners to bear any cost differences between smart and non-smart chargers.

43 However, as noted above, modelling suggests that uptake of smart EV chargers can enable lower network costs, lessening electricity costs for all consumers. I consider the proposal will create more equitable cost sharing and mitigate the risk that EV charging creates costs for all electricity consumers.

Financial Implications

44 There are no financial implications arising from these proposals. Monitoring and compliance of the Regulations will be met within existing EECA funding.

Legislative Implications

45 Work is underway to introduce the Energy Efficiency and Conservation (Energy Flexibility and Regulatory Improvements) Amendment Bill. These changes to the Act include modifications to enable regulation of energy flexibility requirements at the device-level and allowing technical requirements to be prescribed by rules made by the Minister for Energy [ECO-24-MIN-0162 Minute and CAB-24-MIN-0315]. Confidential information entrusted to the Government

46 This proposal for smart EV charger requirements can only take effect once the Bill has been passed. Following this, implementation of these requirements will require new regulations and rules specifying requirements

[10] A 2024 comparison by EECA showed while most non-smart models were $800 - $1,000 and most smart models were $1,000 - $1,700, there were smart chargers available for as little as $680, and non-smart chargers available for as much as $1,300. More recently, we have seen manufacturers seeking to provide lower cost EV smart chargers, for example Evnex (a New Zealand EV charger manufacturer) has recently launched a budget smart charger for $799. The UK experience has also shown an eventual decline in smart charger costs once manufacturers were familiar with the requirements.

for EV chargers. The new rules will also be subject to further consultation prior to implementation.

Impact Analysis

Regulatory Impact Statement

47 A Quality Assurance Panel from MBIE reviewed the Regulatory Impact Statement (RIS) titled Regulating smart EV chargers, prepared by MBIE, on 8 December 2025 and 22 January 2026.

48 The Panel considers that the information and analysis set out in the RIS **meets** the Quality Assurance criteria. The Panel notes that intervention is assessed as necessary to reduce the risk that, under the counterfactual, the market may not deliver inter-operable smart charging at sufficient scale or pace to support system-wide benefits. This is based on assumptions about consumer knowledge and behaviour, which makes ongoing monitoring and evaluation of the intervention particularly important.

Climate Implications of Policy Assessment

49 The Climate Implications of Policy Assessment (CIPA) team has been consulted and confirms that CIPA requirements do not apply to this policy proposal, as the threshold for significance is not met. The emissions impact of this proposal is a reduction of 0.05 Mt CO_2-e in EB2 and 0.15 Mt CO_2-e in EB3. The proposal reduces emissions because regulating EV charger uptake encourages smart charging, which shifts charging away from peak periods when fossil fuel generation is higher. This change lowers grid carbon intensity compared to unregulated charging patterns, resulting in overall emissions reductions. The CIPA team has reviewed the estimates at a high level and considers the modelling to follow good practice and use reasonable, balanced assumptions.

Population Implications

50 The proposed regulations will affect EV owners and public charging companies who wish to purchase a charger with a maximum charge rate above 2.4kW. Smart requirements for these chargers could increase the cost of available chargers. However, increased uptake of smart EV charging is expected to deliver wider system benefits, including costs savings that would otherwise be borne by all electricity consumers.

Human Rights

51 This paper has no human rights implications.

Consultation

52 The Treasury, the Electricity Authority, Ministry for Regulation, the Ministry of Transport and the Energy Efficiency and Conservation Authority have been

consulted on this paper. The Department of the Prime Minister and Cabinet has been informed.

Communications

53 I will announce Cabinet's decisions in due course.

Proactive Release

54 I propose to proactively release this Cabinet paper subject to any necessary redactions. This would be done within 30 business days following confirmation of Cabinet's decisions.

Recommendations

The Minister for Energy recommends that the Committee:

1 **note** increasing uptake of electric vehicles will add to peak electricity demand, increasing costs for all electricity consumers;

2 **note** smart electric vehicles charging can manage this risk, delivering cost savings to all electricity consumers;

3 **note** increasing the uptake of smart appliances and technology standardisation through regulation is a key enabler for a smarter electricity system;

4 **note** the proposal supports our commitment on smart charger requirements under the 2025 Australia–NZ 2+2 Climate and Finance Dialogue and supports international alignment with countries like the UK and Australia;

5 **agree,** subject to the Energy Efficiency and Conservation (Energy Flexibility and Regulatory Improvements) Amendment Bill passing, to develop regulations requiring electric vehicle chargers (supply equipment) with a maximum charge rate above 2.4kW to:

5.1 have smart functionalities

5.2 comply with labelling and other information requirements relating to:

5.2.1 smart functionalities

5.2.2 energy performance

6 **note** I intend to focus requirements on AC chargers of approximately 7 kW used primarily in household settings to manage evening peaks;

7 **note**, subject to the Energy Efficiency and Conservation Act (Energy Flexibility and Regulatory Improvements) Amendment Bill passing, the specific smart functionalities will be further defined in rules made by the Minister for Energy;

8 **invite** the Minister for Energy to issue drafting instructions to the Parliamentary Counsel Office to give effect to the above decisions;

9 **authorise** the Minister for Energy to make decisions on minor additional changes, consistent with the policy intent, on any issues that arise during the drafting process.

Authorised for lodgement

Hon Simon Watts

Minister for Energy

Appendix One – Regulatory Impact Statement