
SBC National EV Charging Strategy Submission

About us

The Sustainable Business Council (SBC) and Climate Leaders Coalition (CLC) present this high-level submission in response to the consultation on *The Government's long-term strategic vision for Aotearoa's national electric vehicle charging infrastructure system*.

This document was created in consultation with members of SBC, a group of more than 138 businesses that contribute more than 33 percent of New Zealand's GDP. Our members include energy companies, network businesses, transport and logistics operators; and automotive importers.

In the light passenger sector, SBC is a member of the Clean Car Sector Leadership Group. We also have our own Clean Car Accelerator group of members. In the freight area, we have established the SBC Low Carbon Freight Group comprising key stakeholders looking to decarbonise heavy freight through optimisation, fuel switching, and mode shift.

Introduction

New Zealand is on the cusp of the biggest transformation in transport in over a century. Over the coming decades, driven by technological advancements and requirements to decarbonise, the transport system will shift away from being powered by fossil fuels.

The emerging technology is electric vehicles. International jurisdictions are setting dates for the end of new fossil fuel light vehicles. Many automakers are committing to dates by which they will only produce electric vehicles.

In 2021, a global Declaration on Accelerating the Transition to 100% Zero Emission Cars and Vans was launched, which targeted new cars and vans being zero emissions globally by 2040, and by no later than 2035 in leading markets. So far 40 countries, including New Zealand, and 14 automotive companies have signed the declaration.

We acknowledge that other technologies may emerge, such as hydrogen. However, at this moment in time, battery-electric vehicles are becoming the dominant alternative technology for light vehicles and we need to prepare for widespread adoption in New Zealand over the coming decades. The scale of this transition cannot be underestimated.

The opportunity however is enormous. We anticipate that the electrification of transport will contribute to significant emissions reductions, and also reduce our reliance on fossil fuels. Over time, electric vehicles will save households on their energy costs. The Ministry for the Environment forecasts that in 2030 electrification of vehicles will have a negative marginal abatement cost, saving costs for consumers and the economy while reducing emissions.

This is not just a transformation in transport, it is also a transformation in energy. Demand for electricity in New Zealand has been relatively stable over the past few decades. As we electrify the economy over the coming decades, demand will rapidly increase. We need to ensure our regulatory settings are fit-for-purpose around electrification.

We believe that a National EV Charging Strategy and a robust public-private mechanism to implement it are essential to ensuring New Zealand is ready to implement the benefits of the widespread adoption of electric vehicles.

Public charging

In New Zealand, currently 82% of charging is done at home¹. There are issues that need to be addressed around at-home charging including the adoption of smart charging, retrofitting apartment buildings, safety rules etc. To support user confidence, reduce range anxiety and drive the uptake of EVs there is an immediate and pressing need to ensure our public charging system is built out.

Public charging gives users the confidence to uptake EV technology, and after the sticker price of EVs, is probably the greatest enabler of uptake. This is in part psychological and in part a real necessity. Necessity stems from the need for users to charge their vehicles on long-distance travel and when away from home. Additionally, there are many users who cannot charge at home and will need to depend on public facilities. The Climate Change Commission's 2023 Draft advice to inform the strategic direction of the Government's second emissions reduction plan (draft advice) says around 15% of households lack a dedicated car park, and these people will need public facilities.²

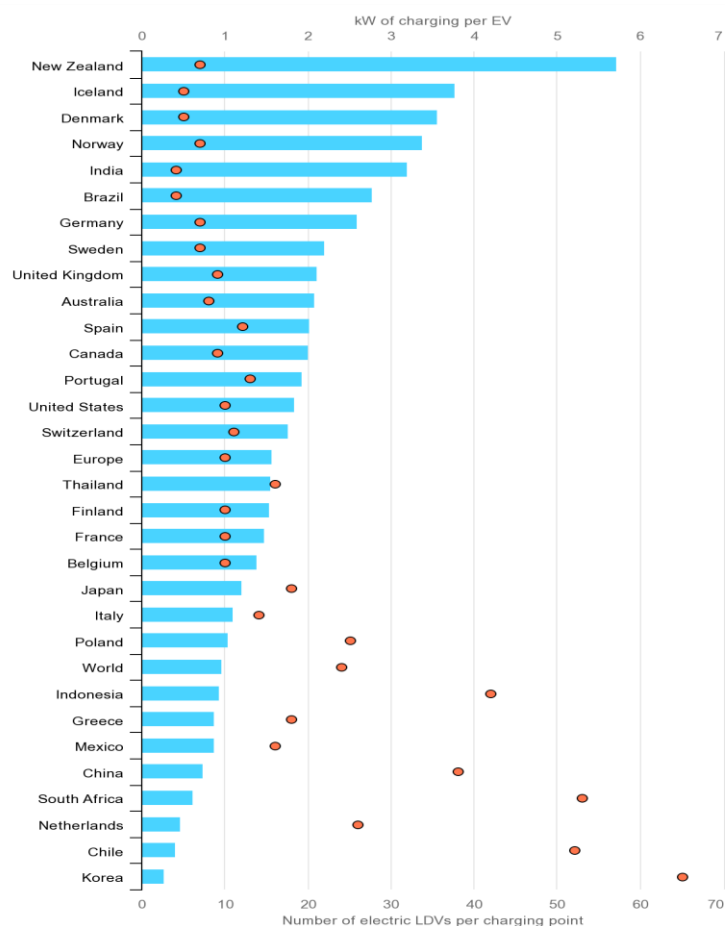
Compared to other countries, New Zealand is desperately behind in the rollout of this infrastructure. The graph below from the IEA sets out the Charging points per EV and kW per electric Light Duty Vehicle (LDV) in selected countries, 2021.³

¹ <https://www.climatecommission.govt.nz/our-work/advice-to-government-topic/advice-for-preparation-of-emissions-reduction-plans/2023-draft-advice-to-inform-the-strategic-direction-of-the-governments-second-emissions-reduction-plan-april-2023/full-report/>

² <https://www.climatecommission.govt.nz/our-work/advice-to-government-topic/advice-for-preparation-of-emissions-reduction-plans/2023-draft-advice-to-inform-the-strategic-direction-of-the-governments-second-emissions-reduction-plan-april-2023/full-report/>

³ <https://www.iea.org/data-and-statistics/charts/charging-points-per-ev-and-kw-per-electric-ldv-in-selected-countries-2021>

Table: Charging points per EV and kW per electric Light Duty Vehicle (LDV) in selected countries, 2021



This shortage in public charging infrastructure has been confirmed in the Climate Change Commission’s draft advice. It has specifically recommended (recommendation 17) that the government must rapidly resolve the barriers to scaling up vehicle charging infrastructure. We note this must be done well before the second emissions budget period, or we risk hampering the uptake of electric vehicles.

Success criteria

We strongly support the need for a National EV Charging Strategy and the establishment of an institutional model to implement it. We note however many of the actions under the focus areas are still in the scoping phase. As such, we need to quickly establish the strategy and then move to be able to systematically address the issues, in conjunction with the private sector.

To finalise the strategy, we have prepared the following success criteria for consideration:

Roles and responsibilities are clear	Government, local government, and private sector all have specific roles and responsibilities in developing and implementing this strategy. (Please see our response on
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	institutional arrangements).
Driven by data	The strategy's implementation needs to be built on a comprehensive analysis of future demand for EV charging and the implications of that for electricity generation, transmission, distribution, and demand management.
Identifies barriers	There is a range of barriers to rolling out private and public charging, including many regulatory ones. These need to be systematically identified and a plan put in place to address these.
Enables the market to deliver where possible	The core focus of the strategy should be to unlock the barriers to private sector investment in private and public charging (and energy generation, distribution, and transmission.) The government can then play a role in addressing any market failures and equity issues.
Consumer / citizen-centric	We believe the consumer ⁴ should be placed at the heart of this strategy so at every step it is designed around delivering positive outcomes for the user, including equitable access.
Efficient	Electrifying New Zealand will take significant investment from both the private and public sectors. However, demand can be managed through smart technologies, price, and regulatory settings.
Implementation	The strategy must be implemented in partnership with the private sector. The public sector must also organise itself so that it can deliver this strategy as a priority. (Please see our response on institutional arrangements).
Funded	Invest appropriate levels of government funding to deliver the strategy, both in terms of institutional models and co-funding to accelerate roll-out. (Sustainable finance tools could be scoped, such as forms of low-interest loans.)
Equitable access	Ensure that the strategy enables all New Zealanders to access charging services, as part of a just transition.

⁴ Corporate Fleet owners may also have specific requirements that need consideration regarding the installation of charging in workplaces and other issues.

Response to the consultation document

Vision and outcomes

We support the vision that “Aotearoa’s EV charging infrastructure supports the transition to and use of low-emissions transport by being accessible, affordable, convenient, and reliable.”

We note however that EV charging is not just a transport issue, it’s also an energy issue. The transition to electric vehicles depends on the availability of electricity; the ability to transmit and distribute that electricity; the ability to manage demand; and the infrastructure to enable users to charge their vehicles. We wish to see a more direct link between New Zealand’s future approach to energy and this charging strategy. This includes equity considerations around energy poverty and access to charging infrastructure.

We support the scope and the five long-term outcomes of the strategy.

Institutional arrangements and implementation

This transition will not occur without careful cooperation between the government, local government, communities, and the private sector. First and foremost, this strategy provides the foundation for which government, local government, and private sectors to play their respective roles and work together to address barriers.

The government should:

- a) set an enabling regulatory environment that removes barriers to private investment in charging infrastructure;
- b) put in place clear national standards to ensure a future-proofed and interoperable system of public chargers and private smart chargers;
- c) ensure there is sufficient energy capacity in place to meet the massive increase in demand for renewable energy resulting from the electrification of NZ;
- d) partner with the private sector to increase demand for EVs, including for low-income households;
- e) underwrite the provision of charging infrastructure to 'hard to reach' communities. Consideration also needs to be given to access for lower income communities; and
- f) Ensure training and immigration settings are right so that we have the relevant expertise in New Zealand to implement this strategy.

Local governments must ensure that national rules around public and private charging are implemented.

The private sector will predominantly be responsible for investing in, delivering, and running private and public EV infrastructure in New Zealand.

As such, the strategy must recognise these different roles and establish a mechanism by which this strategy can be implemented. We support the government reviewing its own institutional models (per Annex 2), and ensuring this model is equipped to deliver the strategy in conjunction with the private sector.

We note however that rapid progress on implementing this strategy needs to be made quickly. In Appendix A we explore this question in more detail. However, we must stress that any

changes to institutional arrangements must not come at the expense of immediate progress. As such, a form of 'establishment unit' should be set up immediately.

Please see Appendix A.

Status quo and targets

We note that the strategy explores the status quo, and later on proposes some targets around the implementation of the strategy. For an effective strategy to be developed and implemented, we believe there needs to be some further analysis conducted, including:

- An analysis of future demand for charging in its various forms (private and public) and the resultant need for investment and installation. (I.e. what is the scale and size of the opportunity, where is investment uneconomic, where do communities need additional support, do we have the talent to roll out charging infrastructure?)
- An analysis of future demand for additional electricity generation and investment in transmission and distribution by e-mobility charging. With accelerating rates of electrification, modelling from Transpower in 2020 anticipated electricity demand will increase by 20% by 2030 and 68% by 2050.⁵
- Relatedly, there needs to be analysis of the barriers to investment in public and private charging. For example, public charging companies report that their investment pipelines are hampered by the costs of connecting to electricity networks and process-related issues. To what extent are these barriers to investment caused by regulation?

When it comes to targets for delivery, targets are useful to measure progress and identify where there may be market failures or gaps in the network. But they should not, in themselves, determine where private investment should go. (This should be demand-led.) In most cases, it will be public charging companies, rather than the government that will deliver on these targets (i.e. install and run the chargers). Therefore, the government's focus needs to be on enabling these businesses to do so first and foremost.

Regulatory barriers

In implementing this strategy, there needs to be a review of regulatory and commercial settings of ecosystem settings that affect investment in and delivery of public charging at scale. This includes network connection pricing and processes, and consenting. Some of these barriers have been identified in the Climate Change Commission's recent draft advice for the second emissions period, and are captured by Recommendation 17.

We also need to ensure that the direction and incentives are right for local councils to support the roll-out of public charging infrastructure in car parks, council amenities, and on-street.

Relatedly, there may be requirements for new fit-for-purpose regulations to support the widespread roll-out of private and public charging solutions, including through mandating the provision of smart charging for private homes, mandating the installation of charging connections for new builds, and ensuring that safety regulations are fit-for-purpose.

⁵ <https://web-assets.bcg.com/b3/79/19665b7f40c8ba52d5b372cf7e6c/the-future-is-electric-full-report-october-2022.pdf>

Government funding

The case remains for government investment in the roll-out of public charging where there are equity considerations. We recommend expanded support for co-investment for EV charging infrastructure to incentivise an accelerated rollout of infrastructure. We particularly support work aimed at promoting the establishment of necessary infrastructure in rural, low-population, or tourist areas.

Heavy vehicles and aviation (relating to Outcome 5)

The [SBC Low Carbon Freight Pathway](#) showed alternative fuels and electrification need to, and can feasibly, play a major role in freight sector decarbonisation. Investments in BEV trucks can deliver emissions abatement at negative costs (i.e. more economically viable than traditional alternatives) when viewed over the longer-term horizon. However, the uptake is limited by the availability of away-from-base re-fuelling infrastructure. The SBC supports outcome 5 of the draft Charging Strategy and is committed to working with government to ensure EV charging infrastructure is suitable for trucks, including on 4 lane highways.

Aviation is difficult to decarbonise and will require investments in novel technologies and co-ordination amongst transport, energy, and tourism. AirNZ and other airlines have already ordered electric aircraft. A stand-alone strategy for decarbonising aviation is therefore required to avoid delays in investments in alternative fuels and sub-optimal outcomes across sectors. We recommend an aviation strategy is developed with urgency. The strategy should include address coordination with supporting energy infrastructure.

Appendix A: Institutional arrangements and implementation

Institutional arrangements for government

Currently, responsibility for EV Charging (and e-mobility generally) sits across a number of government agencies (MBIE, MOT, EECA, Waka Kotahi, Commerce Commission, and the Electricity Authority). Policy, regulatory regimes, investment, and consumer information fall across different agencies.

The status quo creates a number of challenges, including:

- No single point of responsibility in government / many parts of government involved in policy and delivery. (This can make it difficult for agencies to focus on the EV transition amidst competing demands and coordination between agencies is time consuming.)
- No one entity currently exists in government to lead the significant transport transition. (This means the transition may not get the attention and resourcing it requires.)
- No single mechanism through which government and industry can easily partner on delivery.
- No 'one stop shop' to communicate with consumers on this transition. (Also no one stop shop to deal with emerging standards and compliance issues)

We support the concept of the government streamlining its approach, and potentially bringing together e-mobility policy, regulation, funding, and implementation functions into one part of government. This will have the effect of giving e-mobility prominence within government and ensuring rapid progress can be made.

We note however that establishing a new institutional model, as set out in Annex 2 of the consultation document, is time-consuming and resource intensive. We do not want to wait to grapple with pressing issues relating to charging infrastructure, while this work is done. As such, we would recommend that an interim function (an establishment unit) is set up with a view to a more formal entity being established over time. We also note that the government must invest enough into the charging strategy so that policy and implementation work can progress, while institutional models are resolved.

In the longer term, we do support a more formal entity being considered in order to deliver:

- Priority: Provide a dedicated part of government the mandate and resources to deliver the EV targets under ERP, reflecting the size and scale of this transition.
- Process: Streamline the government's leadership and approach to the transition.
- Engagement: Make it easy for businesses and citizens to engage with the government regarding the transition.
- Coordination: Central point of coordination with all players: e.g. local government, other parts of central government, and energy/EDB sector.
- Standards and compliance: Ensure the infrastructure meets user expectations, setting and administering safety standards.
- Communication: Take New Zealanders on the journey with the information they need.

The formal entity's functions could include:

- Policy and regulation
- National strategy and implementation
- Monitoring the performance of key programmes
- Coordinating with local government and industry
- Investment (i.e. consumer incentives, EECA funds)
- Standards and compliance
- Comms, education, and engagement

Delivering with the private sector

Relatedly, it is essential that the government partners with the private sector on the implementation of this National EV Charging Strategy. As we cover in our introduction, government, local authorities, and the private sector have specific roles to play. We strongly support the adoption of a mechanism that is established to implement the strategy. Again, we do not want to wait while this mechanism is established before we make progress under this strategy. As such a more flexible mechanism should be established by the government's establishment unit, to co-deliver, in the short term that enables quick progress on core issues.

The preferred mechanism for should support the roll-out of private and public EV charging infrastructure and services (including the interaction between electricity and charging infrastructure) by:

- Systematically identifying issues and barriers where there would be benefit from public and private sector participants working together to overcome these, such as potential misalignment between the regulation applying to electricity and charging infrastructure;
- Effectively communicating those issues and barriers, both across government agencies and externally;
- Determining a work program that works through the issues and barriers in a logical way and which is complimentary or feeds into the interagency working group work on a National EV Charging Strategy;
- Undertaking the work program, including:
 - identification and analysis of options to address identified issues and barriers
 - agreement on specific solutions, either through consultation on solutions proposed by the interagency working group or through consensus or agreement
- As the EV Charging Strategy begins to be implemented, monitoring progress by continuing to identify and potentially resolve ongoing issues and barriers; and
- Where appropriate, actively supporting infrastructure roll-out (e.g., through funding or partnership).

There are many forms this mechanism could take. It could be an informal arrangement or a legal entity. It could share information, provide advice, or be tasked with decision-making. In part it will be formed by the shape the government's own institutional model takes.

We have developed some criteria for assessing a private sector implementation mechanism:

- **Appropriate resourcing** | Does the mechanism include independent and commercially minded decision makers or advisors who are focused on outcomes and have the capability to help deliver them?
- **Effective private sector input** | Does the mechanism ensure the private sector input is given appropriate weight when developing the EV Charging Infrastructure Plan?

- **Simplicity and timeliness** | How simple or otherwise is the mechanism to establish and operate? How much time would be needed to develop and establish the option?
- **Effective stakeholder engagement** | How would the mechanism ensure all relevant viewpoints are considered – noting different stakeholders may have different ability or need to engage at different times?
- **Effective operations** | Can the mechanism produce effective and timely outputs (e.g., advice or recommendations)?
- **Robust analysis** | How important is it that the mechanism produces decisions that are based on robust evidence and analysis?
- **Flexibility** | Should the mechanism be able to operate flexibly, for example by responding quickly to new issues and priorities?
- **Accountability** | How are accountability requirements addressed? (Representatives involved in day-to-day work may have accountability obligations to their employer or a stakeholder organisation.)
- **Cost effective** | What would the costs of the mechanism be, would these be proportionate to the benefits?
- **Management of conflicts of interest** | Are conflicts of interest a concern and, if so, how would they be managed?
- **Completion Law** | Are there risks of breaching relevant competition law and, if so, how would they be managed?

One model

In time, it is likely that the government’s longer-term institutional solution could also be home to an implementation mechanism with the private sector. The table below summarises our thinking in this chapter.

Table: Summary of institutional arrangements and private sector engagement

	Short term	Long term
Public sector institutional arrangements for implementation	Rapidly stand up a dedicated function to implement the National EV Charging strategy, i.e. an establishment unit	A formal institution tasked with delivering the National EV Charging Strategy (and other EV related policy and regulation) with a formally established mechanism to partner with the private sector.
Private sector partnership in implementation	Have the establishment unit rapidly standup a dedicated mechanism to involve the private sector on government decisions relating to the implementation of the National EV Charging Strategy.	