



Crombie Lockwood Tower
Level 16, 191 Queen Street
PO Box 7244
Wellesley Street
Auckland 1141
New Zealand
Email: office@infrastructure.org.nz

11 May 2023

Infrastructure New Zealand Submission on the electric vehicle charging strategy for Aotearoa New Zealand

1. Introduction

- 1.1 Infrastructure New Zealand (INZ) welcomes this opportunity to submit on the draft long-term electric vehicle charging strategy for Aotearoa New Zealand, *Charging our Future*.
- 1.2 INZ is New Zealand's membership organisation for the infrastructure sector. We promote best practice in national infrastructure development through research, advocacy, and public and private sector collaboration. Our members come from diverse sectors across New Zealand and include infrastructure service providers, investors, and operators.
- 1.3 While INZ has submitted as the peak infrastructure sector organisation, we have also encouraged our members to make their own submissions raising those issues specific to their areas of interest or expertise.

2. General Remarks

- 2.1 The Emissions Reduction Plan (ERP) set an ambitious target for the transport sector to reduce its emissions by 41% by 2035 and reach net zero by 2050 to support Aotearoa New Zealand's international commitments.
- 2.2 To support this, the Government has also set a target to increase zero-emissions vehicles to 30% of the light vehicle fleet and reduce emissions from freight transport by 35%.
- 2.3 The Climate Change Commission's draft advice on the second Emissions Reduction Plan underscores the importance of rapidly resolving the existing barriers to scaling up vehicle charging infrastructure and incentivising electric vehicle uptake to reach carbon reduction targets. The Commission notes that the main constraint on EV uptake during the second emissions budget period would be sufficient vehicle charging infrastructure – not access to low emissions vehicles.

- 2.4 New Zealanders use their vehicles for the vast majority of travel (82% of trips by travel time)¹. While the Government is committed to shifting private travel to other modes, this is just one part of the equation. Major public transport infrastructure projects, for instance Auckland Light Rail are only anticipated to shift travel from private travel to public transport by 5% over the next 30 years.²
- 2.5 Decarbonisation of the private vehicle fleet is an essential part of the Government's approach to meet its emissions targets. Collective action from businesses and individuals will be necessary to achieve this, and Government will need to play a lead role in shifting behaviours and attitudes towards low-emissions travel choices, ensuring that there is support for those seeking to change their travel patterns and choices, and addressing any market barriers.
- 2.6 INZ welcomes the Government's efforts to promote greater uptake and use of low emissions vehicles through the clean car discount, scrap and replace scheme and through electrifying the public fleet. We see this EV charging strategy as another key component of the government response.
- 2.7 Infrastructure New Zealand supports this strategy, and the outcome and focus areas outlined within it. The charging network itself plays an important role in encouraging more people to transition into electric vehicles. If we wait for enough electric vehicle users to justify building the necessary charging infrastructure, we may only prolong the rate of uptake due to factors including range anxiety. Putting in place the charging infrastructure ahead of demand will provide enough confidence for those considering purchasing an electric vehicle and gives us a better chance of accelerating uptake of the technology.
- 2.8 We have focused our submission on the following key areas where we think the strategy should be strengthened:
- The need for institutional arrangements that engender strong collective accountability and action within Government to support delivery of the strategy.
 - Greater exploration and use of public-private models of cooperation to deliver the strategy.
 - Greater attention to measures that are needed to support the adoption of low emission technology in our heavy vehicle fleet.
 - Consideration of opportunities to better integrate the planning and delivery of charging infrastructure with current transport and urban planning processes.

3. Institutional arrangements to implement the strategy

- 3.1 The discussion document seeks feedback on the institutional arrangements for implementing the strategy.
- 3.2 Te Manatū Waka has led the draft strategy with input and advice from other government entities and stakeholders and expects to finalise it jointly with the Ministry of Business,

¹ Ministry of Transport Household travel survey. <https://www.transport.govt.nz/statistics-and-insights/household-travel/>

² Auckland Light Rail Indicative Business Case: Demand forecasting technical note. Available from <https://www.lightrail.co.nz/media/zufnvmcf/appendix-010-transport-assessment-redacted.pdf>

Innovation and Employment. The discussion document notes that as the charging system matures and grows in scale, these arrangements are unlikely to be sufficient.

- 3.3 Infrastructure New Zealand supports greater joined up policy development and implementation within Government and minimisation of administrative and compliance costs. The increasingly complex nature of infrastructure policy issues warrants greater co-ordination across government departments to ensure that policy development is integrated and targets the root causes of existing challenges.
- 3.4 We encourage the Government to consider mechanisms that promote collective accountability and make use of existing departmental resources and relationships to deliver the strategy. The interdepartmental board model prescribed in the Public Service Act should be considered as a priority given the issues span portfolio responsibilities and functions that are dependent on each other to deliver a common objective or result.³
- 3.5 Collective accountability mechanisms can also provide an opportunity for collective funding decisions without creating additional costs of establishing a new unit/entity and creating further fragmentation within the system which will ultimately lead to increased compliance costs that are passed on to end users.
- 3.6 Should the Government decide to establish a new unit/entity, we expect a robust business case to identify a form that matches its expected functions, and sufficient mandate, scope and authority delegated to the unit/entity so that it can deliver the strategy efficiently. The business case should also consider the option of tasking Crown Infrastructure Partners with implementing the strategy given its existing role, mandate, and past track record with the ultra-fast broadband rollout.

4. Public-private cooperation

- 4.1 The discussion document also seeks feedback on the way central government should work with the private sector.
- 4.2 The Clean Car Sector Leadership Group, including the Sustainable Business Council, Drive Electric and Vector, has proposed to work with the Government to co-develop an implementation plan for the national EV Charging Strategy and establish a focused public-private mechanism to advance this.
- 4.3 INZ sees a strong need for Government to better enable and harness the use of private capital and therefore, we support the use of public-private models of cooperation in delivering infrastructure.
- 4.4 A partnership approach between the Government and the private sector would enhance delivery capability, transfer key risks of deliverability to the private sector as well as the

³ Public Service Commission (2022). Supplementary guidance note — interdepartmental executive board. Available from <https://www.publicservice.govt.nz/guidance/supplementary-guidance-note-interdepartmental-executive-board/>

ability to deliver key parts of the strategy earlier than might be possible through a solely publicly funded and financed programme.

- 4.5 The Government should be doing more to leverage private sector capability and resources. The private sector is well-placed to provide significant support in delivering the country's infrastructure needs through its significant delivery capacity and capability; flexibility to scale up quickly where it sees increasing demand; size of finance pool; commercial discipline and sophistication; and industry and technical expertise.
- 4.6 The Government should be exploring models such as soft loans, that require zero to low interest rates, that can be used to attract private capital to deliver our charging infrastructure network.
- 4.7 An example is the Ultra-Fast Broadband roll out which leveraged \$1.7bn of Government funding to attract \$5bn of private capital. In this case, the cost to Government was limited to the interest cost as repayment of Crown funding was a condition of the loan. This approach has more recently been used in the Government's Shovel Ready stimulus programme.
- 4.8 The challenge in undertaking this approach is likely to be in establishing the "concession period" for the soft loans to ensure they drive uptake of the service. A time bound approach is likely to be better than a use-based concession as the former will encourage private partners to drive uptake to fund the soft loan as it becomes commercial or is repaid while a use-based approach may create perverse incentives on the partner as they are discouraged from driving uptake to prolong the subsidy.
- 4.9 As a first step, we urge the Government to appoint a reference group with representation from the industries with an interest in this strategy, to ensure that the final strategy and its implementation receive robust challenge and to better identify the opportunities for industry to support the strategy. The construction sector accord reference group architecture could be a valuable model to replicate, with reference groups that correspond to the various sub-groups and sectors that have an interest in the charging strategy.

5. Support for freight and heavy commercial vehicles

- 5.1 Trucks account for a very small number of vehicles on New Zealand's roads (approximately 3.5%) but, because of their heavier weight and because they travel much further each year, they account for a much greater proportion of road transport emissions (approximately 25%).⁴
- 5.2 INZ supports the vision of the strategy remaining neutral in relation to mode but would like to see the Government make a greater commitment to supporting the heavy vehicle sector given the target in the emissions reduction plan to reduce emissions from freight transport by 35%.

⁴ Concept Consulting and Retyna Consulting, 2022. Policies to incentivise the uptake of zero-emission trucks. Available from https://www.concept.co.nz/uploads/1/2/8/3/128396759/policies_to_incentivise_the_uptake_of_zero-emission_trucks.pdf

- 5.3 At present the strategy refers to the need to undertake research and support innovation but tangible progress is needed now.
- 5.4 We need to build a better understanding of the relative merits and applicability of different technology options for heavy vehicles, given the category lags behind the light vehicle fleet when it comes to low emissions alternatives. We will also need to be cognisant of New Zealand's position and ability globally as a fast follower of new technology trends rather than a first mover. It is important that the Government works alongside the sector to understand the likely transition path and technology options that exist.
- 5.5 One way of doing this might be to pilot more projects to test alternative technologies such as hydrogen, overhead catenary electric road systems and high-power charging systems for battery electric vehicles. These could be invaluable to better understand the real-world infrastructure needs, operational costs, and realistic timelines for rolling out such infrastructure.⁵
- 5.6 The Government could also consider subsidising initiatives that support operators to transition to low or zero emission vehicles such as "Energy as a Service" (EaaS) initiatives that make such vehicles financially viable for companies as they don't need to make the significant upfront investment in the equipment. One example is Janus Electric⁶ in Australia who convert existing fleets to electric vehicles and estimate that converting existing diesel-powered trucks with their technology can reduce capital costs by up to 70%.
- 5.7 We have seen Transit Group successfully pilot a similar conversion for a diesel double decker bus last year. This type of initiative needs to be supported as it achieves the low emission objective without stranding assets which still have a significant useful life remaining.
- 5.8 The Government will need to work closely with the sector, building on existing initiatives like the innovation fund. There may be value in establishing a heavy vehicle reference group to inform the choices the Government will need to make. Such a reference group could include heavy vehicle users, suppliers, maintenance providers and other interested and impacted parties (e.g. KiwiRail).
- 5.9 While not related to this strategy, the pressures on heavy vehicles and the freight sector in particular highlight the need for Government to prioritise congestion charging as a way of reducing one of the most significant costs for freight (time / delays) and providing greater flexibility for the sector, on the proviso that public transport alternatives are put in place to ensure equity and mitigate the financial impact on lower income households.

6. Integrating infrastructure planning and delivery

- 6.1 The EV charging strategy focuses on ways of retrofitting charging infrastructure in existing transport corridors and residential areas. There is also a need to ensure that new infrastructure developments and transport corridors are planned and designed in a way that considers the need for charging infrastructure. This includes the provision of charging

⁵ International Transport Forum (2022). Decarbonising Europe's Trucks: How to minimise cost uncertainty. Available from <https://www.itf-oecd.org/sites/default/files/docs/decarbonising-europes-trucks-minimise-cost-uncertainty.pdf>

⁶ <https://www.januselectric.com.au/>

infrastructure in new residential and commercial developments, state highways, local roads, rail stations, public transport interchanges, etc.

- 6.2 The charging strategy should contemplate the possible requirements for planning and delivery agencies and organisations including Waka Kotahi, regional transport authorities, KiwiRail and others to consider the need for charging infrastructure within their plans and how it could be integrated within their networks to best support emissions reduction targets.

7. Conclusion

- 7.1 INZ supports the strategy as a key plank in the Government's emissions reduction plan for the transport sector.

- 7.2 We recommend making the following changes to strengthen it:

- Establish institutional arrangements that engender strong collective accountability and action within Government to support delivery of the strategy.
- Greater exploration and use of public-private models of cooperation to deliver the strategy.
- Greater attention to measures that are needed to support the adoption of low emission technology in our heavy vehicle fleet.
- Consider opportunities to better integrate the planning and delivery of charging infrastructure withing current transport and urban planning processes.

Yours sincerely,



Michelle McCormick

Policy Director

Infrastructure New Zealand