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Dear Sir/Madam

Waikato Regional Council Submission to Charging Our Future – a draft long-term electric vehicle charging strategy for Aotearoa New Zealand

Thank you for the opportunity to submit on Charging Our Future – a draft long-term electric vehicle charging strategy for Aotearoa New Zealand. Please find attached the Waikato Regional Council’s final submission regarding this document.

Waikato Regional Council operates under various statutes including the Land Transport Management Act 2003, the Resource Management Act 1991 and the Climate Change Response Act 2002. The Council is responsible for preparing a Regional Land Transport Plan, Regional Public Transport Plan and Regional Policy Statement, all of which seek to integrate land use and transport planning. The Council is responsible for implementing central government direction to reduce carbon emissions, and we recognise that electric vehicles have a role to play in decarbonising our transport system. The Council is also the public transport authority for the region.

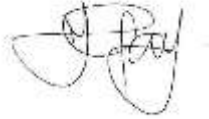
Waikato Regional Council has been working collaboratively with district councils within the region to develop a “toolkit” of resources to assist in planning for EVSE, including weighting criteria for considering infrastructure proposals, policy and contractual templates – all supported by overarching guiding strategic principles and priorities.

Overall we support Charging Our Future: a draft long-term electric vehicle charging strategy for Aotearoa New Zealand. Specific points and suggestions are **detailed in the attachment** to this letter.

We would be happy to discuss any aspect of this submission further with the Ministry of Transport or provide further information about the regional work.

Should you have any queries regarding the content of this document please contact Julie Hansen, Senior Policy Advisor – Transport and Infrastructure, Transport Policy and Programmes directly on (07) 8584631 or by email Julie.Hansen@waikatoregion.govt.nz.

Regards,



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HE TAIAO MAUIORA	HEALTHY ENVIRONMENT
HE ŌHANGA PAKARI	STRONG ECONOMY
HE HAPORI HIHIRI	VIBRANT COMMUNITIES

Introduction

1. In early 2022, territorial authorities in the Waikato region began to experience pressure to act on developing EV charging infrastructure in their areas, especially on council-owned land. Around the same time the Climate Action Committee of the Waikato Regional Council suggested that the regional council and territorial authorities could work together to advance a strategic, collaborative, and consistent approach to EV charging (also known as Electric Vehicle Supply Equipment or EVSE) in the Waikato region. As a result, Waikato Regional Council, Hamilton City Council, Waikato District Council, Waipā District Council and Waka Kotahi formed the Waikato Regional EV Network Infrastructure Working Group (EV Charging Working Group).
2. The EV Charging Working Group has been developing a “toolkit” of resources, templates, and guidance to support both Councils and EVSE providers to progress a network of EVSE in the Waikato region with confidence. The primary focus of our work has been on the installation of EVSE on council owned land, and not on private land such as at shopping malls.
3. To date the following documents have been developed and are in final review (except principles which are final) and undergoing “comms” design before the toolkit is made readily available:
 - Guiding strategic principles and priorities to support decision-making.
 - A comprehensive set of weighting criteria to assess EVSE proposals and procurement processes.
 - Generic EVSE policy template (based on the guiding principles).
 - Licence to Occupy Agreement templates (two versions lite and comprehensive to cater to different needs and scales of activity or types of engagement)
 - Considerations for choosing EVSE sites/locations (insights into why and where to put in terms of network development as well as site specific/technical considerations).
 - Collated links and resources – useful articles, research, government policies and standards.
 - FAQs to support Councils at the beginning of their EVSE network development journey.
 - Glossary of Terms for EVSE and related activity to support consistency in terminology and understanding.
4. This work is intended to reduce duplication of effort and resource use for participating councils, provide consistency in expectation setting, messaging and process for providers and consistency in user experience and best practice outcomes for EV users across the region.
5. Since late last year, membership has grown to include all councils in the Waikato region, CoLab¹, and Te Waka². Meetings are well attended and valued as demonstrated by strong participation and engagement.
6. Despite not owning land on which EVSE are generally installed (mainly owned by territorial authorities and road controlling authorities), WRC has continued to be involved in the group as a facilitator and to provide administrative support. This work, along with our role as the public transport authority for the region, has informed the contents of this submission.
7. This collaborative work also supports our regional objectives to reduce transport emissions and meet targets set in the Regional Land Transport Plan 2021 - 2051 and the Regional Public Transport Plan 2022 -2052.

¹ CoLab is a company owned by twelve councils formed to drive collaboration between councils, improve customer service and performance, and to reduce costs.

² Waikato’s regional economic development agency

General comments

8. We recognise EVs have a role to play in reducing transport emissions and seek to ensure this strategy is consistent with broader national objectives to increase multi-modal transport options and to reduce the vkt (vehicle kilometres travelled) of the light vehicle fleet.
9. We also recognise that EV uptake will be influenced by government policy e.g. clean car discount, and that network development and the locations of EVSE may be impacted by such policy.
10. One of our primary concerns is the future generation and supply of electricity. Security of network and supply needs to be ensured before the increased focus and uptake of a national electrified fleet. Transpower estimates electricity demand will increase by 70% by 2050, partly due to increasing population and gross domestic product, but mostly due to the anticipated electrification of transport and industry. We understand a national energy strategy is being developed that will address broader generation and capacity issues at a national level. We strongly support any action to identify where supply is likely to be an issue to support forward planning coupled with consideration of government financial support to address supply constraints to avoid creating or worsening regional inequities. This may also be extended to provide improvements to electricity infrastructure and delivery generally in rural or poorly served areas.
11. We think there is too strong a focus on journey charging (fast or DC charging) in the strategy. We suggest a general action to monitor the EV fleet characteristics to ensure balance and equity in network development. Different regions and communities have quite different needs, and some will have a higher proportion of older EVs that cannot be connected to fast chargers. The strategy needs further consideration of other ways that network development can support improved overall community outcomes and user experience, including the value of AC (or slower) charging to the host community/facility.
12. We seek clarity on the roles and responsibilities of the different participants in the enabling and provision of EVSE, especially in relation to references in the strategy to public charging. Specifically we need the strategy to be clear on the appropriate role for local authorities. We suggest that local government's role should be to support and enable EVSE and we have concerns about the implied expectation in some of the actions that local authorities will be required to implement or deliver EVSE.
13. The Councils (elected members) in the Waikato region that have had initial "toolkit" material presented to them have chosen to be "active facilitators" in the provision of EVSE i.e. *proactively building an environment that encourages and supports increased EV infrastructure*. None of them have expressed a desire to provide and install EVSE themselves.
14. We encourage further investigation into policies that will support the reliability and availability of EVSE, by prohibiting non-EVs from parking in EV charging zones. This could be done through parking infringements and other regulations.

Vision

15. We support the Vision and Scope of the draft strategy.

Outcome 1: Our national EV charging system is underpinned by affordable, reliable, secure and safe power supply and infrastructure.

16. We support this outcome but note there is no reference to renewable energy sources. New Zealand's commitment in the Emissions Reduction Plan to reducing emissions in the energy sector and the in-development New Zealand Energy Strategy means that the generation of renewable energy will increase. Reference in this document to a charging network and system that is based on renewable energy signals a further and positive commitment to a net zero emissions economy.

Focus area 1a. Minimising stress on the electricity network

17. We support this Focus Area but consider the language used is less than ambitious. We seek a more aspirational, enabling and supportive Focus Area which encapsulates the goal of not only minimising stress on the electricity network, but also seeks to increase network capacity and resilience.

18. During the course of our regional work, we have identified that existing and planned electricity infrastructure and capacity from electricity distributors or retailers is not as visible as it could be for councils and independent EVSE providers – better sharing and cooperation from distributors would speed up planning and ensure better network design and sustainability. As a result, we suggest a second focus area relating to visibility of the electricity network and encourage the prioritisation of the suggested further action: *Publish detailed electricity network capacity data so public and private infrastructure planners can see where constraints are to encourage efficient investment.*

19. We support the use of smart chargers and incentives to avoid peak demand in principle but have concerns this could cause equity issues. Underrepresented and disadvantaged households are more likely to spend a higher proportion of their household income on transport costs and therefore could benefit from transport electrification. However, they are less likely to have an option for fast home charging due to the cost of connection infrastructure and are less likely to be homeowners.

Outcome 2: All EV users can safely access and use EV charging when and where needed

20. Outcome 2 is supported by WRC in that it signals the transition to EVs for all New Zealanders. However, there is further opportunity to improve access and reduce inequities for some sectors of our communities.

21. We suggest an additional action to develop guidelines to assist with assessment of the suitability of sites based on principles and assessment criteria like those developed by the regional EV Charging Working Group. The guidelines could include best practice in relation to:

- Location
- Safety and crime prevention through environmental design
- Accessibility
- Expectations around appropriate maintenance
- Benefits to the community, including consideration of equity

22. We support the action to *Ensure policies and interventions target an equitable transition to meeting the specific needs of different communities* but we note that universal design and communication features for EVSE is not specifically referenced in the draft strategy. We suggest an action to review the publicly available specification NZ PAS 6010:2021 Electric vehicle (EV) chargers for commercial

application so that designers, procurers and installers anticipate and overcome restrictions and barriers that could prevent any user from making full and independent use of the EVSE.

Focus area 2a – Improving the equity of, and access to, safe residential/home charging

23. We support the action to further understand the issues for access to chargers at home by specifically looking at rental accommodation, locations with challenging topography, multi-unit dwellings and social housing without access to off street parking. We suggest a further action is included to investigate requirements/policy directions that will incentivise the location of EV chargers at temporary accommodation sites, such as hotels, motels and campsites.
24. We support the action to review current regulations relating to residential EV charging to ensure they remain fit for purpose. We suggest this should also include a review of building regulations and district planning standards.

Focus area 2b – Accommodating for geographic variation in charging needs and energy supply

25. The work we are involved in has demonstrated that there are diverse needs and priorities for each of the districts and communities within the Waikato region. This means that every district council assessing EVSE proposals will have different priorities according to the community they represent.
26. As such, we see this Focus Area – and the acknowledgment of differing needs and capabilities behind it – as a priority when considering national strategy and planning. The needs of Hamilton residents is vastly different to those in the rural areas of the region, and indeed other parts of New Zealand.
27. This Focus Area highlights the need for good information, data and evidence-based planning to support development of the ‘right infrastructure in the right place at the right time’. We particularly support the identified further action: *Monitor the expansion of the public EV charging network in line with EV uptake forecast levels across regions to inform investment*. We encourage further research into the distribution of EVSE based on regional requirements.
28. In relation to the further action: *Implement a consistent, practical planning and approval process for new EV chargers across councils*. We support this as it is like work that is well progressed within the regional EV Charging Working Group that we are finding valuable. Our “toolkit” for all Councils within the region offers support in planning, weighting criteria for considering infrastructure proposals, policy and contractual templates – all supported by overarching guiding strategic principles and priorities.
29. The EV Charging Working Group has identified the need to assess proposed EVSE, not only for technical practicalities, but also whether a proposal supports other important community priorities and outcomes such as economic benefits or ‘enlivening’ potentially marginalised communities, or avoiding adverse impacts on important heritage sites or areas of cultural significance to Māori.
30. For example, as part of the Waikato Regional collaboration, we have been considering including conditions in agreements that, in exchange for the opportunity to access public land, a provider may also be required to install EVSE in a location that, while perhaps not a priority from a commercial sense, is a priority for the council from a community outcomes perspective.
31. An important part of the conversation exploring roles and responsibilities in developing the EVSE network involves asking “what obligation is there for commercial EVSE providers to ensure equity of access and opportunity to participate in the network?”. This could be part of the guidelines we have suggested above.

32. We would also like to suggest this Focus Area acknowledges the importance of understanding the needs of EV users from their perspective and that communities are consulted on their preferences and aspirations in terms of the EVSE network development in their areas and those they use regularly.
33. We support targets for journey charging hubs every 150-200 kms on main highways. We consider this will support EVSE in smaller towns in the Waikato region that are on state highways but are below the proposed 2000 population threshold. For example, Kawhia (population 400, located on SH31) and Coromandel (population 1700, located on SH25) are remote and geographically challenged making EVSE even more important as charge depletes quickly on the journey there.
34. Towns or settlements that are not on the state highway network and that do not meet the population threshold could be served by a “community charging hub” whereby it is beneficial to distribute one EV charger within a central radius of a group of settlements. We consider the strategy could include a further action to investigate how the population ratios are determined and reviewed. For example, consideration might need to be given to transient populations – including those populations who commute to an area for work.
35. We support the target of *public charging at municipal or community facilities by 2025*, as this generally reflects the work the regional EV Charging Working Group to focus on council owned facilities. We support the inclusion of community facilities as some of the smaller towns and settlements in Waikato region will not have council owned premises present, but will need to rely on other community facilities such as sports clubs, show grounds, local halls (some are owned by the community as opposed to councils), marae etc. However, we want to see more detail on this, including whose responsibility it is to meet the target, who provides the infrastructure and how much of it, and what support is available to deliver. Note that a target date of 2025 for EVSE at municipal or community facilities, will have implications for council planning and funding, regardless of who the supplier is. It is imperative that this action is progressed quickly so that provision can be made in council Long Term Plans.
36. Waikato Regional Council is unique in New Zealand in having a dedicated team supporting community transport providers across the region. The type of service generally provided is a health shuttle that transports users to appointments in Hamilton or other urban areas. Several of the providers have indicated that a major barrier to their uptake of EVs is the lack of EVSE at the locations where they need to deliver their passengers. For example, there is no EVSE at Waikato Hospital available for use by community transport providers. We seek a further action to advance the installation of EVSE at destinations other than municipal or community facilities, such as at hospitals and other state-owned facilities, which play a vital role in supporting vulnerable members of our community.
37. We consider the strategy should include a further action to investigate the role of stationary battery storage and other charging innovations to supply the EV charging network during an emergency. The discussion document refers to the role of stationary battery storage in addressing seasonal EV charging demands, however we consider it should also account for emergency situations (for example, the sustained electricity outage in Hawkes Bay following Cyclone Gabrielle) and in power outages such as those caused by weather or accidents. It is important that communities still have modes of transport available to them in emergency situations such as this and a community that is reliant on EVs would face significant challenges if no backups were available.

Outcome 3: Aotearoa’s EV charging system is underpinned by integrated planning and standards across multiple sectors

38. We support this Outcome because there are multiple benefits to users, providers of electric charging infrastructure and regulatory authorities. We suggest further actions as follows:

- Work on understanding the current uptake **and use** (not just ownership but how and where people are using EVs and EVSE) and thorough projections analysis for the whole country should be a priority before network development goes too far.
- Other information than that available on EVRoam (location and availability of EVSE) would be useful to inform future development and understand patterns of need (e.g. time of day/night and length of use). We suggest incorporating these into data sharing guidelines proposed as an action under the focus areas for this Outcome.

Focus area 3a: Improving standardisation and interoperability

39. We support improving standardisation and interoperability of EVSE to provide an improved and consistent user experience. Indeed, this is another aim of the work we are carrying out within the region. We are working on agreeing consistent approaches in terms of what councils require from EVSE to encourage a seamless experience across city and district boundaries, and to set consistent expectations across the region for those providers seeking to partner with any one of the councils within the region.
40. We have incorporated and expanded upon the relevant Standards New Zealand PAS Guidelines and look forward to seeing these updated with the latest advice.
41. Supporting EVSE providers to accommodate universal payment systems (e.g. bank/credit card/PayWave) instead of users having to download a multitude of apps for different providers would be a useful aspect of this work.
42. We note the first point in further actions for this Focus Area is ‘promote... a customer-centred approach to EV charging’. We would like to see this point, along with a focus on user experience and community outcomes, emphasised more in the overall strategy to balance what has been industry led EVSE network development.
43. In relation to the further action area: *Support local authorities to implement the required public charging infrastructure*, district councils within the Waikato region welcome any support, however we would want to understand how the “required public charging infrastructure” may be defined or determined and by whom.
44. In relation to the further action area: *Develop systems and support networks to share best-practice between local authorities, industry and central government to ensure guidance and regulations are feasible and proportionate*. This is exactly the kind of work that our regional EV Charging Working Group Council has been undertaking. It has been invaluable for staff working in the EVSE space and we strongly encourage this action, especially in the early adoption phase of EV uptake.
45. We support the further action to promote national consistency and reliability of the service, particularly when there is an increase in the number of chargers installed without government co-funding. We consider the strategy should address any challenges associated with the maintenance of EVSE and recognise the need to ensure there is funding to guarantee future reliability.

Focus area 3c: Consideration of housing and urban development planning, where appropriate

46. We support the action to explore the costs and benefits of introducing EVSE requirements for new developments. We consider a policy direction requiring EVSE to be near medium and high-density

developments would be beneficial but suggest this should not be inconsistent with the National Policy Statement for Urban Development, in particular subpart 8 – Car parking.

Outcome 4: Aotearoa’s EV charging market functions effectively, can adapt and evolve over time, and is attractive to users, operators and investors

Focus Area 4a: Accelerating commercial investment

47. We support the intent to maximise a market-led rollout to build the EVSE network. This reflects the view of some district councils within the Waikato region that councils do not have a role in the provision of EVSE and that this is better left to the private sector. While councils may choose to support EVSE in their communities, councils’ understanding of community need and priorities for public funds are likely to be different to that of commercial EVSE providers.
48. Relevant to this point is the focus on high-speed journey charging. This seems to be consistently the dominant type of charger supported by EECA and places the priority on EV users travelling longer distances and not supporting EV familiarisation and use within communities.
49. We suggest more of a balance in the encouragement to the market and in the support provided by EECA to reflect the diversity of need in different communities and localities for different types of charging infrastructure. Also, to recognise the value of AC chargers to communities and users beyond just the speed convenience of DC charging.
50. We support the Commerce Commission review into any barriers to creating new connections in a timely and cost-effective manner and suggest this actively seek to identify and protect against potential anti-competitive behaviour as more and more electricity distributors also develop EVSE offerings.
51. Ensuring robust data and open sharing of information between the public and private sectors where appropriate will be important to support effective and efficient delivery.

Focus Area 4b: Enabling innovation in new technology and business models

52. We support the intentions and actions suggested within this Focus Area.
53. We suggest a further action to investigate the “sweet spot” in terms of striking the right balance between first mover disadvantage and “first in first served”, especially in relation to new technology and business models.

Outcome 5: Our national EV charging system supports the transition to, and use of, low-emissions transport modes across the wider transport system

54. This Outcome and high-level approach to low-emissions transport across the wider transport system is supported.
55. Waikato Regional Council is the public transport authority for the region. Objective 1 of the 2022 – 2032 Regional Public Transport Plan (RPTP) is: *Deliver public transport services in a way that results in at least net neutral carbon emissions for the period 2025 to 2050*. The RPTP recognises that electric charging depots are highly strategic assets and their location in relation to bus routes is critical in determining service efficiencies and operating costs. WRC will seek to control or own strategic

facilities such as depots and charging facilities and make them available to contracted service providers. We recognise that this is a current technology that is rapidly evolving, and we need to make provision for future technology solutions to avoid unintended consequences.

56. While there may be similarities in EVSE for urban buses, inter-regional buses, and other heavy vehicles, providing and operating multi-use facilities would have significant logistical and commercial challenges that may increase cost, complexity, and risk. This is likely to lead to this infrastructure for each fleet being provided independently.
57. However, if properly supported through crown funding there are significant opportunities for long-term, market-coordination based efficiencies. This would be timely given that several Public Transport Authorities, including Waikato Regional Council are currently working towards establishing charging infrastructure required to meet the government mandate for zero emission vehicles from 2025.
58. The distinct requirements of heavy vehicles suggests that EVSE for light vehicles should be dealt with separately.
59. Over half of New Zealand's freight movements are within the upper North Island regions. Strategic road corridors in the Waikato region facilitate the efficient, reliable and safe movement of freight between Auckland, Tauranga, the Waikato inland port and logistics hubs and through the rest of the North Island. It is therefore important that the charging network takes into consideration the unique needs of freight including:
 - Location of heavy vehicle EVSE needs to be close to strategic routes with good power supply to maintain operating efficiencies and costs.
 - Site specific requirements such as -
 - Safe entry and exit points
 - The ability to charge truck and trailer units at the same time
 - Having enough space to manoeuvre a 23m vehicle as well as the provision of parking and rest areas for drivers to complete their rest breaks.
60. The technology for freight decarbonisation, including green hydrogen is being developed at pace. It is imperative that resources to assist the uptake of electric heavy vehicles is prioritised. We recognise that this draft strategy has a focus mainly on light vehicles but anticipate further detailed actions in the next iteration of this strategy.
61. We note that targets for small towns or settlements or remote areas may be impacted by network capacity within local areas. It will be important to investigate the projected uptake of electric off-road vehicles to ensure the supply network can cope with the additional demand.
62. The strategy states it relates to all types of charging – but it doesn't address charging for E-bikes and the increasing numbers of E-micro-mobility devices. The location of chargers for E-bikes will differ to EVs and it would be helpful to understand why E-bikes haven't been addressed in this strategy. E-bikes and E-micro-mobility devices have the potential to resolve some of the traffic problems (other than emissions) that EVs can't e.g. congestion, safety, and community and individual health and wellbeing. If E-bikes are to be considered in this strategy, we would advocate for public charging hubs in the centre of town (e.g. smart benches), along common commuter networks and on some of the longer recreational cycling trails including those that are part of Ngā Haerenga New Zealand Cycle Trails.

Further actions

63. We suggest the inclusion of a glossary in further iterations of the strategy to ensure consistency of language and terminology for use in New Zealand.
64. We think the strategy would benefit from the inclusion of case studies or good examples of best practice, either in their physical manifestation, or in terms of process.