23 August 2019

Withheld under section 9(2)(a) of the Official Information Act 1982

Dear [Name]

I refer to your request dated 26 July, pursuant to the Official Information Act 1982 (OIA), seeking:

"I would like any advice, aide memoirs, notes, or reports given to the Minister of Transport Development on lowering emissions in the Government fleet from 08/10/2014 to 26/10/2017.

I would also like to request any advice, aide memoirs, notes, or reports on the uptake of electric vehicles/EVs/electric cars in the Government fleet from 08/10/2014 to 26/10/2017.

I would also like to request the above but for NZ’s fleet rather than just for the government fleet as well."

The following documents fall within the scope of your request and are enclosed:

<table>
<thead>
<tr>
<th>#</th>
<th>Document Type</th>
<th>Date</th>
<th>Title</th>
<th>Comments</th>
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<tbody>
<tr>
<td>1</td>
<td>Briefing</td>
<td>28/11/14</td>
<td>Transport and the environment work programme</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<tr>
<td>2</td>
<td>Joint briefing</td>
<td>28/11/14</td>
<td>Opportunities to encourage the uptake of electric and hybrid vehicles</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<td>3</td>
<td>Aide memoire</td>
<td>28/11/14</td>
<td>Zero Emissions Vehicles’ suggestions to enhance electric commercial vehicles</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<td>4</td>
<td>Briefing</td>
<td>26/3/15</td>
<td>Electric vehicles: measures to encourage uptake</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<td>4a</td>
<td>Attachment</td>
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<td>Report on possible government measures to encourage the uptake of electric vehicles</td>
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<td>5</td>
<td>Briefing</td>
<td>24/8/15</td>
<td>Electric vehicles: update on development of package to encourage uptake</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<td>6</td>
<td>Briefing</td>
<td>27/8/15</td>
<td>Electric vehicles: research into future price and supply</td>
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<td>6a</td>
<td>Attachment</td>
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<td>Research into the long-term trends for electric vehicle</td>
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<td>7/10/15</td>
<td>Options for a government-industry package to encourage the uptake of electric vehicles</td>
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<td>6/11/15</td>
<td>Electric vehicles: follow up to your meeting with Ministry of Transport officials on 2 November 2015</td>
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<td>9/11/15</td>
<td>Meeting with the Minister of Revenue on potential issues with electric and hybrid vehicles</td>
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<td>9a</td>
<td>Accelerated Uptake of Electric Vehicles in Corporate Fleets</td>
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<td>10/11/15</td>
<td>Electric vehicles and Road User Charges – additional information</td>
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<td>7/12/15</td>
<td>Electric vehicles package: Draft Cabinet paper</td>
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<td>11a</td>
<td>Electric vehicles: package of measures to encourage uptake (v1)</td>
<td>As discussed below, draft refused. Final version publicly available.</td>
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<td>Electric vehicles package: final Cabinet paper</td>
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<td>Electric vehicles: package of measures to encourage uptake (v2)</td>
<td>As discussed below, draft refused. Final version publicly available.</td>
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<td>Regulatory Impact Statement: Road user charges exemptions and discounts for electric vehicles (v1)</td>
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<td>23/2/16</td>
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<td>Electric vehicles: package of measures to encourage uptake (v3)</td>
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<td>13b</td>
<td>Attachment</td>
<td>Aide memoire: Cabinet paper seeking agreement to an electric vehicles package</td>
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<td>13c</td>
<td>Attachment</td>
<td>Regulatory Impact Statement: Road user charges exemptions and discounts for electric vehicles (v2)</td>
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<td>14</td>
<td>Briefing</td>
<td>18/3/16 Options for procurement of electric vehicles</td>
<td>Some information withheld under s9(2)(a) and s9(2)(b)(ii) of the OIA.</td>
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<td>15</td>
<td>Briefing</td>
<td>5/4/16 Cabinet paper on Promoting the Uptake of Electric and Other Low Emission Vehicles</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<td>15b</td>
<td>Cabinet paper</td>
<td>Promoting the uptake of electric and other low emission vehicles</td>
<td>Refused under s18(d) of the OIA.</td>
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<td>16</td>
<td>Briefing</td>
<td>31/5/16 Electric Vehicles Programme: draft implementation plan</td>
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<td>17</td>
<td>Briefing</td>
<td>5/8/16 Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2016</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<td>Attachment</td>
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<td>17b</td>
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<td>17c</td>
<td>Attachment</td>
<td>Road User Charges (Exemption Period for Light Electric RUC Vehicles) Amendment Order 2016</td>
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<td>18</td>
<td>Briefing</td>
<td>9/8/16 Implementation options for allowing electric vehicles access to bus and high occupancy vehicle lanes</td>
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<td>Briefing</td>
<td>11/8/16 Extending Road User Charges exemption to heavy electric vehicles</td>
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<td>20</td>
<td>Joint briefing</td>
<td>7/12/16 Investment focus for the second round of the Low Emission Vehicles Contestable Fund</td>
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<td>Briefing</td>
<td>9/12/16</td>
<td>Joining the international EV Government Fleet Declaration</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<tr>
<td>22</td>
<td>Aide memoire</td>
<td>25/1/17</td>
<td>Electric Vehicles – draft letter to Government agency chief executives</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<td>22a</td>
<td>Attachment</td>
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<td>23</td>
<td>Briefing</td>
<td>7/3/17</td>
<td>Energy Innovation Bill: draft departmental report</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<tr>
<td>23a</td>
<td>Attachment</td>
<td>Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill: Officials’ Report to Select Committee</td>
<td>Refused under s18(d) of the OIA.</td>
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<td>24</td>
<td>Briefing</td>
<td>12/5/17</td>
<td>Feedback on proposed Rule changes for the electric vehicles in special vehicle lanes initiative</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<td>25</td>
<td>Briefing</td>
<td>12/6/17</td>
<td>Electric Vehicles – Subordinate Legislation to support Energy Innovation (Electric Vehicles and Other Matters) Amendment Act 2017</td>
<td>Some information withheld under s9(2)(a) and s9(2)(h) of the OIA.</td>
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<td>25a</td>
<td>Cabinet paper</td>
<td>Electric Vehicles – Subordinate Legislation</td>
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<td>25b</td>
<td>Attachment</td>
<td>Land Transport Rule: Traffic Control Devices Amendment 2017</td>
<td>Refused under s18(d) of the OIA.</td>
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<td>25c</td>
<td>Attachment</td>
<td>Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017</td>
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<td>Attachment</td>
<td>Land Transport (Road User) Amendment Rule 2017</td>
<td>Refused under s18(d) of the OIA.</td>
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<td>25e</td>
<td>Attachment</td>
<td>Cabinet Committee Background Information and Talking Points</td>
<td>Some information withheld under s9(2)(a) of the OIA.</td>
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<td>26</td>
<td>Briefing</td>
<td>14/6/17</td>
<td>Joining the international EV Government Fleet Declaration</td>
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<td>26a</td>
<td>Attachment</td>
<td>Government Fleet Declaration</td>
<td>Refused under s18(d) of the OIA.</td>
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</table>

Certain information has been withheld under the following sections of the OIA:

- 9(2)(a), which relates to protecting the privacy of natural persons
• 9(2)(b)(ii), which relates for the withholding of information where making information available would be likely to prejudice the commercial position of the person who supplied that information or who is the subject of the information.

• 9(2)(h), which relates to maintaining legal privilege.

• 18(d), where the information requested is or will soon be publicly available.

Documents 6a, 13a, 13c, and 15b are all publicly available on the Ministry of Transport’s website at https://www.transport.govt.nz/multi-modal/climatechange/electric-vehicles/development-of-the-electric-vehicles-programme/.

Document 13a is the final version of a Cabinet paper that was proactively released on the Ministry of Transport’s website. Documents 11a and 12a are previous versions of the same paper. Document 12b is a previous version of document 13c, the Regulatory Impact Statement. As the changes between versions of these papers were not substantial, we are only releasing the final versions.

The following documents are also publicly available and can be found online.

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<thead>
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<th>No.</th>
<th>Available from</th>
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<tr>
<td>17c</td>
<td><a href="http://www.legislation.govt.nz/">http://www.legislation.govt.nz/</a></td>
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<td>26a</td>
<td><a href="https://www.iea.org/media/topics/transport/EVI_Government_Fleet_Declaration.pdf">https://www.iea.org/media/topics/transport/EVI_Government_Fleet_Declaration.pdf</a></td>
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</tbody>
</table>

You have the right under section 28(3) of the Official Information Act to make a complaint about the withholding of information to the Ombudsman, whose address for contact purposes is info@ombudsman.govt.nz. The Ministry publishes our Official Information Act responses and the information contained in our reply to you will be published on the Ministry website. Before publishing we will remove any personal or identifiable information.
Yours sincerely

Glen-Marie Burns
Manager Urban Development & Environment
For CHIEF EXECUTIVE
**Transport and the Environment Work Programme**

**Reason for this briefing:** You requested advice on the transport and environment work programme for the Ministry of Transport (the Ministry) during a meeting with officials on 4 November 2014.

**Action required:** Consider the contents of this briefing and agree the scope of the work programme.

**Deadline:** At your earliest convenience.

**Reason for Deadline:** Not applicable.

**Contact for telephone discussion (if required):**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone Direct Line</th>
<th>Telephone After Hours</th>
<th>First Contact</th>
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<tr>
<td>[Redacted]</td>
<td>Senior Adviser</td>
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<tr>
<td>Erin Wynne</td>
<td>Manager, People and Environment</td>
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</table>

**MINISTER’S COMMENTS:** Withheld under section 9(2)(a) of the Official Information Act 1982

Given limited resources, prioritise EVs, hybrid work over biofuel or other work.

**Date:** 28 November 2014  
**Briefing Number:** OC02641  
**Attention:** Hon Simon Bridges (Minister of Transport)  
**Security level:** In-Confidence

**Minister of Transport’s office actions:**
- [ ] Noted
- [ ] Seen
- [ ] Approved
- [ ] Needs change
- [ ] Referred to
- [ ] Withdrawn
- [ ] Not seen by Minister
- [ ] Overtaken by events
Purpose of report

1. This briefing provides background information on work currently under way within the Ministry’s transport and environment work programme, outlines other potential work areas, and seeks your agreement to undertake further work on electric and hybrid vehicles, and bio fuels.

Background

2. During a meeting with officials on 4 November 2014, we advised that the Ministry would provide you with a work programme on two specific areas, electric and hybrid vehicles, and bio fuels, for your consideration.

Work streams

3. In addition to proposing work on electric and hybrid vehicles, and bio fuels, the Ministry has also identified other potential work streams, and ongoing work that should be included within the transport and environment work programme. These areas of work are summarised below.

4. A table listing the work streams, including timing and indicative resource requirements, is provided in Appendix A.

5. The proposed work programme would require approximately 3 full time equivalent staff across the Ministry.

6. Other Ministry work programmes, such as the Intelligent Transport Systems action plan’s work on congestion charges, may also contribute to the outcomes of the transport and environment work programme.

Proposed new work on electric and hybrid vehicles, and bio fuels

7. The Ministry seeks your agreement to undertake new work on bio fuels, and electric and hybrid vehicles.

   Electric and hybrid vehicles

8. The Ministry considers reducing the prices of electric vehicles through cheaper battery technology, and the introduction of a broader range of models, are the most likely ways to increase the number of electric and hybrids vehicles. These factors are largely outside of New Zealand’s control.

9. We consider there are a range of options to incentivise the uptake of electric and hybrid vehicles that warrant further investigation. These options may be a mixture of:

   9.1. information and promotion
   9.2. the Government leading by example
   9.3. Government support for electric vehicle infrastructure
   9.4. Government partnering with private organisations
   9.5. reducing disincentives
   9.6. financial incentives.
10. Information on the current number of electric and hybrid vehicles in New Zealand, factors that may be causing the slow uptake, and the benefits of these vehicles is provided at Appendix B.

11. A specific briefing will be provided to you and Hon Tim Groser, Minister for Climate Change Issues, on 1 December 2014 that provides further advice on electric and plug-in hybrids, including options that might encourage greater uptake.

12. In addition to collaborating with other Government departments, we will consider research that is being undertaken at Otago University under its Energy Cultures work programme on electric vehicles. One piece of work has been considering the legal and policy barriers for electric vehicle uptake.

[Redacted text]

Other new work

17. In addition to proposed work on bio fuels, and electric and hybrid vehicles, there are a number of other potential work streams we plan to undertake.

New Zealand’s fleet

18. The Ministry holds some information on fleet owners in New Zealand. However, we do not have robust qualitative information on the purchasing decisions of fleet owners. This work stream would explore how fleet owners make decisions for their fleets and inform policy levers that could be used to encourage the uptake of electric or hybrid vehicles. Government
leadership in procurement policies and fleet choices would also be considered under this work.

Out of scope
Cross Government approach

34. In undertaking the proposed work programme, the Ministry will need to engage and work with other agencies across Government. The Ministry has circulated the proposed work programme to the Ministry for the Environment, Ministry for Primary Industries, Ministry of Business, Innovation & Employment, Ministry of Foreign Affairs and Trade, the Treasury, and EECA for comment.

35. Agencies were supportive of the work programme.
Recommendations

36. The recommendations are that you:

(a) agree that work on electric and hybrid vehicles should include exploring the Government leading by example; supporting electric vehicle infrastructure; partnering with private organisations; information and promotion of electric vehicles; reducing disincentives and consideration of financial incentives.

(b) [Blank]

Out of scope

(c) [Blank]

Withheld under section 9(2)(a) of the Official Information Act 1982

MINISTER’S SIGNATURE:

DATE:

27 January 2015

Erin Wynne
Manager, People and Environment
## Appendix A – Work programme

<table>
<thead>
<tr>
<th>Work streams</th>
<th>Key tasks</th>
<th>Indicative timing</th>
<th>Estimated FTE resourcing (across the Ministry only)¹</th>
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<td>New work streams</td>
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<td>Electric and hybrids vehicles</td>
<td>Initial briefing on the emerging uptake of electric (EV) and hybrids vehicles, including potential policy responses.</td>
<td>1 December 2014</td>
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<td></td>
<td>Extension of current road user charges exemption.</td>
<td>March 2015</td>
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<td>Impact of electric buses in public transport on urban air quality in Auckland.</td>
<td>May 2015</td>
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<td>Consideration of adjustment of the fringe benefit tax application to EVs and hybrids to recognise the benefits of these vehicles.</td>
<td>May 2015</td>
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<td>Feebates² – such as setting differentiated annual vehicle licensing fees to reflect the level of CO₂ emissions emitted by a vehicle.</td>
<td>May 2015</td>
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<td>Consideration of adjustment of annual ACC levies paid by owners of plug in hybrids in recognition that ACC levies are also paid through petrol costs.</td>
<td>May 2015</td>
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<td></td>
<td>Investigate the possible removal of import duties on batteries for EVs.</td>
<td>May 2015</td>
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</table>

¹ NB – The Ministry will collaborate with other departments on parts of the work programme.

² Feebates is a mechanism that is used in the United Kingdom and other OECD countries to incentivise the purchase of low carbon emitting vehicles. The cost per vehicle for annual fees such as vehicle registration is determined by the level of emissions. If set correctly, the impact on government revenue will be zero.
<table>
<thead>
<tr>
<th>Work streams</th>
<th>Key tasks</th>
<th>Indicative timing</th>
<th>Estimated FTE resourcing (across the Ministry only)</th>
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<td>Exploration of Government support to roll-out electric vehicle charging infrastructure.</td>
<td>May 2015</td>
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<td>Out of scope</td>
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<tr>
<td>Other new work streams</td>
<td>Exploration of New Zealand’s fleet, including decisions on fleet vehicle choice, Government procurement.</td>
<td>March 2015</td>
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<td>Engagement with fleet owners.</td>
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**Released Under the Official Information Act**
Appendix B: Background information on electric and hybrid vehicles

1. The numbers of electric and plug-in hybrid vehicles is increasing. They currently make up less than 0.02 percent of the total vehicle fleet. Conventional hybrids (such as the Toyota Prius) are increasing slowly and make up around 0.3 percent of the fleet.

2. Fleet owners, as the leading purchasers of new vehicles, are not showing an inclination toward purchasing electric (or hybrid) vehicles. This might be attributed to the higher cost of electric vehicles, their limited range, and other uncertainties, such as resale value and maintenance costs (e.g., battery replacement). There are also issues with the types of electric vehicles being sold in New Zealand. To date, the three new vehicle options have been small cars. However, more than half of new vehicle sales are large commercial diesel vehicles, especially 4-wheel drives, utes, and vans.

3. Benefits of electric and plug-in hybrid vehicles include reduced carbon emissions, reduced reliance on fossil fuels, improving air quality, and reduced noise pollution.

4. Under current regulatory settings, New Zealand is unlikely to see a large number of electric and hybrid vehicles enter the fleet for well over a decade due to the slow vehicle fleet turnover. Using current fleet trends and the probable future of used imports, the projected composition of the fleet in 2025 would have approximately 2.9 percent hybrids and 0.2 percent electric vehicles.

5. The high price of batteries means that electric vehicles cost more to purchase than conventional vehicles. When they were launched in New Zealand, the few electric vehicles models being sold initially had retail prices two or three times the price of equivalent petrol or diesel models. However, there have since been reductions in prices of these models. This means that some electric vehicle models may now have lower whole-of-life costs than equivalent conventional vehicles, with higher purchase costs offset by fuel savings. The cost and travel range of electric vehicles is expected to improve as battery technology improves.

6. Range anxiety also contributes to the low uptake of pure electric vehicles, and high price contributes to the low uptake of plug-in hybrids (priced between $60 to $70K).

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3 Electric vehicles are charged only from the mains. Plug-in hybrid vehicles operate on a combination of batteries that are charged externally, along with petrol or diesel motors.
To: Hon Simon Bridges, Minister of Transport  
Hon Tim Groser, Minister for Climate Change Issues

Opportunities to encourage the uptake of electric and hybrid vehicles

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### Ministry of Transport Contacts

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<td>Responsible Manager</td>
<td>Erin Wynne, People and Environment</td>
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<td>Acting Director</td>
<td>Pauline Doherty, Climate Change</td>
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Withheld under section 9(2)(a) of the Official Information Act 1982

### Executive Summary

1. This briefing provides preliminary advice on potential policies to encourage the uptake of electric and hybrid vehicles in New Zealand. It has been prepared in response to requests from the Minister of Transport and the Minister for Climate Change Issues. It seeks your agreement to discuss the content of this briefing and depending on the outcome of this discussion, direct officials to undertake further work on a potential package of policies.

2. The transport sector is expected to play a role in helping New Zealand meet its emissions reduction commitments. Encouraging the uptake of electric/hybrid vehicles is just one of a number of measures being considered for reducing emissions in the sector.

3. New Zealand is well positioned to benefit from electric/hybrid vehicles. As well as reducing emissions, increased uptake can bring a range of benefits including reducing our reliance on imported fossil fuels, cost savings from fuel, enhancing the efficiency of renewable electricity networks and improving air quality.

4. New electric/hybrid vehicles are becoming increasingly cost-competitive in terms of total cost of ownership with some models already commercially viable. However, uptake in New Zealand has been low with electric/hybrid vehicles currently making up only 0.32% of the total vehicle fleet.
5. There are a number of barriers and market failures associated with this low uptake including high upfront costs, supply of used electric/hybrid vehicles being constrained by Japanese vehicle preferences and policies, and information barriers. The limited range of electric vehicles and lack of public recharging networks have also been identified as barriers.

6. We have identified the following categories of options to address these barriers:

   1. Information and promotion campaigns – to overcome information barriers and change perceptions.
   2. Government leads by example – encourage electric/hybrid vehicles in government fleets, and government funded “demonstration” charging infrastructure.
   4. Reducing the upfront and operational costs – a package of policies could be implemented, including extending the Road User Charge exemption for electric vehicles/plug-in hybrid vehicles and removing financial disincentives.

5. Based on our preliminary analysis, we consider that a package of measures would be the most effective way to encourage the uptake of electric/hybrid vehicles in New Zealand. If agreed, we will undertake further analysis and will report back to you in April 2015 on:
   - initial advice regarding an extension or other adjustments to the Road User Charge exemption
   - the factors affecting fleet purchasing decisions, based on discussions with key stakeholders, such as the New Zealand Fleet Managers Association and the Sustainable Business Council
   - potential scope and costs of an information and promotion campaign
   - the feasibility of amending the all-of-government fleet procurement guidelines
   - the Government’s role in implementing a voluntary fuel economy standard
   - the process and timing for removing financial disincentives that currently exist.

Situation Analysis

7. This briefing provides preliminary advice on potential policies to encourage the uptake of electric and hybrid vehicles in New Zealand (Appendix 1 provides background information on these vehicles). It has been prepared in response to requests from the Minister of Transport and the Minister for Climate Change Issues.

8. The Ministry of Transport met with the Minister of Transport on 4 November 2014 to discuss transport and environment issues (OC02613). On 3 November, the Ministry for the Environment, in consultation with the Ministry of Transport, provided you with a memo on New Zealand’s transport fleet, with examples of policies used internationally to enhance the uptake of low emissions vehicles (14-B-01749 refers). This briefing builds on that information and recommends some areas for further investigation.

Transport greenhouse gas emissions

9. Transport accounts for almost 20% of New Zealand’s greenhouse gas emissions. Of this figure, 89% are from road transport, with the majority from the light passenger and commercial fleet (81%). Emissions from the sector are currently 60% above 1990 levels and are projected to be 75% above 1990 levels by 2020.

10. Reducing emissions from the sector will require a range of policies. These include encouraging uptake of electric vehicles, greater use of biofuels, research into alternative fuels, increased investment in public transport/active modes, and intelligent transport
systems. On 28 November, the Ministry of Transport provided a briefing to the Minister of Transport on a work programme where a range of feasible options were considered (OC02641 refers).

11. The Ministry of Transport considers it unlikely that electric/hybrid vehicles will make a significant contribution to New Zealand’s 2020-2030 emissions reduction target. Ministry of Transport modelling indicates that doubling the uptake rate of electric/hybrid vehicles over the next 25 years (compared to business-as-usual baseline) could result in emissions reductions of 7% in the transport sector by 2040.

12. The Ministry for the Environment consider that if supply limitations can be overcome there is potential to more than double uptake rates, resulting in even greater emissions reductions.

Benefits and opportunities of increased uptake of electric/hybrid vehicles

13. Replacing a conventional car with a comparable electric vehicle (and plug-in hybrid vehicles (PHEVs) running only on electricity) is estimated to reduce emissions by over two tonnes per year, if the electricity is generated from renewable sources. Conventional hybrid vehicles that are powered by a regular internal combustion engine are generally twice as efficient as petrol/diesel vehicles.

14. With more than three million light vehicles on the roads, at an average lifespan of 20 years, this presents an opportunity to reduce emissions over the long term.

15. Other benefits include greater energy security by reducing our reliance on imported fossil fuels, cost savings from fuel, enhancing the efficiency of renewable electricity networks, improving air quality and reducing noise pollution.

16. New Zealand is well positioned to benefit from electric vehicles/PHEVs because:
   - we have high levels of renewable electricity generation (currently 78%), with more than enough consented to meet future demand\(^3\)
   - 95% of daily travel demand is for distances less than 120 kilometres, which is within range of electric vehicle/PHEV batteries (approximately 150 kilometres per charge)
   - we do not need major investment in infrastructure - domestic power supply is suitable for charging at home, and most homes have off-street parking

17. The technology, performance and costs of new electric/hybrid vehicles are improving rapidly. In the last 12 months, the cost has decreased significantly. For example, the Nissan Leaf electric car currently sells at approximately $40k (previously $70k). By comparison a similar size Toyota Corolla sells at $33-43k.

Barriers to the uptake of electric/hybrid vehicles in New Zealand

18. Commercial fleet purchases (70-80% of new vehicle registrations each year) and used imports from Japan (50% of total vehicle registrations each year) are the most significant sources of vehicles for New Zealand. Both these markets face barriers to uptake, which include:
   - High upfront costs – although some models are becoming cost-competitive, the average upfront cost of electric vehicles/PHEVs are generally higher than

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\(^1\) This reduction is equivalent to carbon dioxide emitted annually by electricity generation for hot water heating in every home in New Zealand today.

\(^2\) In 2012 domestic transport accounted for 82% of national oil consumption.

\(^3\) Alongside the current market of about 43,000 GWh, there is a further 10,500 GWh of renewables already consented and ready to be built.
conventional vehicles, and consumers are not recognising their additional associated value.

- *Few electric/hybrid models available in New Zealand* – only a small range of models are offered in the New Zealand market currently.

- *Supply of used imports is likely to be constrained in the foreseeable future* – uptake of electric vehicles/PHEVs in Japan is expected to be low out to the foreseeable future. Further, Japanese policies mean electric/hybrid vehicles do not depreciate as quickly\(^4\). These factors consequently limit the supply of used electric/hybrid vehicles in New Zealand.

- *Limited range* – pure electric vehicles are not suited to long journeys (over 150km).

19. Government is limited in what it can directly do to address the above barriers. In some cases we may not need to intervene as these barriers may reduce themselves through cost reductions and improved battery technology over time.

20. There are also market failures that are limiting the uptake of electric/hybrid vehicles which we could have more direct influence over, including:

- *Coordination ('chicken and egg') problems* – new technologies, such as electric/hybrid vehicles, require simultaneous investment by producers and consumers, but few investors want to risk being first because if the other side of the market does not follow then they make a loss. For example, consumers are reluctant to purchase electric/hybrid vehicles without a recharging network but the private sector will not invest in a network until there is sufficient demand.

- *Uncertainties and information barriers* – uncertainties about the total cost of ownership (particularly for fleet buyers) including the maintenance costs and resale value\(^5\), availability of recharging points, future regulatory settings, and cost of electricity and oil. There are also consumer misconceptions around vehicle performance (e.g. the range of an electric vehicle is not high enough to satisfy their needs and/or they lack power).

**Current policies to encourage the uptake of electric/hybrid vehicles**

21. Measures have been implemented to promote the uptake of low emission vehicles generally, which have an impact on the uptake of electric/hybrid vehicles, including:

- the New Zealand Emissions Trading Scheme establishes a price on emissions that flows through to the cost on petrol (the current price signal is weak at less than 1 cent per litre)
- fuel economy labelling scheme
- electric vehicles/PHEVs are exempt from road user charges (RUC) until 2020 resulting in estimated savings of $400-$700 per year per vehicle.

22. To date, these initiatives have had limited impact. While the numbers of electric/hybrid vehicles are increasing, they currently make up 0.32% of the total vehicle fleet\(^6\).

**Measures taken by private industry**

23. Electricity companies are also starting to promote the uptake of electric vehicles/PHEVs. Northpower, Vector and Mighty River Power (MRP) have, or will soon have, electric

\(^4\) The precise reasons are complex, but previous subsidies, and public education and perceptions appear be playing a role.

\(^5\) Lease and business fleets do not invest due to uncertainties about the difference between the purchase price and resale value which is a key factor in their lease rates and purchasing policies.

\(^6\) Electric vehicles/PHEVs only make up 0.02% of our total fleet.
vehicles as part of their fleet. Some companies also offer discounts for charging vehicles\(^7\). In May this year Northpower installed New Zealand’s first electric vehicle rapid charger. We also understand that MRP is working with Auckland City Council to promote electric vehicles.

24. The Sustainable Business Council (SBC) has brought together fleet managers (including car manufacturers and 20 corporates) to identify opportunities for a more productive transport sector. This work has a broader focus than electric/hybrid vehicles. The SBC research has identified a wide range of options, in addition to promoting the use of electric/hybrid vehicles, many of which would require government input. The SBC is interested in discussing their findings with Ministers in the near future.

Advice

25. In the long term, we consider that electric/hybrid vehicles will help facilitate personal mobility and economic activity, while also contributing to reducing emissions from transport. To achieve this, electric/hybrid vehicles need to compete on at least an equal footing with conventional petrol vehicles. The barriers that hinder the adoption of electric/hybrid vehicles are not adequately understood; earlier efforts are preventing this outcome in the short term.

26. We have identified the following options to address these barriers and to encourage the uptake of electric/hybrid vehicles in New Zealand:

1. Information and promotion campaigns – to overcome information barriers and change perceptions.
2. Government leads by example – encourage electric/hybrid vehicles in government fleets, and government funded “demonstration” charging infrastructure.
3. Government partnering with industry – working with the Motor Industry Association (MIA) to develop voluntary fuel economy targets for new vehicles.
4. Reducing the upfront and operational costs – a number of policies could be implemented, including extending the RUC exemption for electric vehicles/PHEVs and removing financial disincentives.

27. Appendix 2 provides a table with our detailed preliminary analysis of the specific options, including their effectiveness, indicative cost and implementation requirements.

Information and promotion campaigns

28. An information campaign can help overcome information barriers and dispel misconceptions\(^8\), provide credibility to consumers and confidence to industry partners to promote electric/hybrid vehicles. It is likely to play an important role within a suite of measures to promote uptake. The most benefit is expected to be gained by targeting fleet owners, as they are responsible for over two-thirds of new vehicle purchases.

29. An information and promotional campaign could include:
   - influencing fleet buyers through targeted events and markets\(^9\)
   - online information and tools for fleet managers, such as the total cost of ownership calculators and business case examples

\(^7\) MRP offers residential customers 30% cheaper rates for charging cars after 11pm.

\(^8\) Common myths are “special infrastructure is needed for me to use an EV”, “the range is too short to be practical”, “the batteries will need to be replaced often and are environmentally unfriendly to dispose of”.

\(^9\) EECA is already working with the NZ Fleet Managers Association, Company Vehicle Magazine and Drive Electric (the EV promotion group) on an event for fleet managers in Auckland late March 2015 which could be scaled up to more events across the country.
• advertising on television to reach a wide audience
• joint initiatives with private sector companies and local government
• installation of 'demonstration' vehicle charging infrastructure at highly visible locations nationwide\(^\text{19}\).

30. The design of any campaign would be supported by research to ensure that it is targeted at the right people on the right issues. This would consider research currently being undertaken by Otago University on the policy barriers for electric vehicle uptake, and by the SBC on improving transport productivity.

31. Based on other Energy Efficiency Conservation Authority (EECA) campaigns, the cost is likely to range from a minimum of $400,000 per year over two years to $1.7 million per year over five years (depending on scope). To secure funding in Budget 2015/16 a budget bid will need be prepared by 12 December 2014.

Government leads by example

32. The Government could set an example by promoting the use of electric/hybrid vehicles in its own fleet. This would:
• overcome the 'chicken and egg' issues and information barriers by providing real world information to other fleet buyers around the whole of life costs (e.g., maintenance costs and resale value)
• enhance the credibility of a public information and promotion campaign
• support the flow of electric/hybrid vehicles into the second hand market where there may be latent demand.

33. Promoting uptake within Government could be pursued by:
• including a CO\(_2\) emissions target or proportion of electric/hybrid vehicle target in procurement rules
• all-of-government fleet procurement guidelines gives greater prominence to electric/hybrid vehicles (due to be updated in mid-2015)
• running test drives and demonstrations for fleet managers.

34. The cost may be relatively low because there are already commercially competitive electric/hybrid models on the market, and initial data suggests whole of life costs are comparable to conventional petrol vehicles. However, this depends on whether cost-effective models are available in the vehicle classes required. A detailed analysis of the costs will need to be investigated with MBIE.

Government partnering with external organisation

35. There is an opportunity to establish a voluntary fuel economy target with the MIA. The MIA represents the official importers and distributors of new cars, trucks and motorcycles in New Zealand.

36. The key benefit of this option is that it gives industry the freedom to determine how it will contribute to improving the fuel economy (and thereby reduce emissions) of the fleet over time. It would have minimal implementation costs. While the standards are not specific to the uptake of hybrid/electric vehicles, it can indirectly promote them. The effectiveness of this option is dependent on the level of the standard and the rate of voluntary uptake.

37. A meeting is scheduled between the Chief Executive of MIA and the Minister of Transport on 8 December where this opportunity could be raised (OC02678 refers).

\(^{19}\) Small number of installations estimated at a one-off total cost at $100k - $200k.
38. In addition to this, work is being done on a number of fronts by industry to promote electric/hybrid vehicles, particularly by electricity companies such as MRP, and the SBC. There is value in the Government engaging with these groups and leveraging off their work (e.g. partnering with electricity companies to promote widespread time of day charging or with local government to promote free parking for electric/hybrid vehicles).

Reducing the upfront and operational costs

39. Upfront costs are a key barrier for the uptake of electric/hybrid vehicles in New Zealand. While this briefing does not cover direct subsidies, which we understand Ministers do not want to consider, there are a range of other financial measures that could be taken to reduce the capital and operational costs.

Extend the road user charge (RUC) exemption

40. Electric vehicles/PHEVs are currently exempt from paying RUC until 2020\(^1\). We could consider extending the RUC exemption to a later date to continue to recognise the role that these vehicles could play in reducing CO\(_2\) emissions. When the exemption was first introduced, Cabinet approved the exemption until electric vehicles/PHEVs made up 1% of the total fleet [EGI Min (09) 10/7 refers]. Under the current trajectory we are very unlikely to reach this threshold by 2020.

41. The exemption is estimated to result in annual savings of $400 to $700 per vehicle, which helps make them operationally cost-competitive, and can mitigate any first-mover disadvantages. It would also provide greater certainty in electric vehicle/PHEV resale values. The SBC has advised that businesses consider the exemption to the RUC as critical to the business case for electric vehicles/PHEVs. The Ministry of Transport has not undertaken a formal evaluation of the RUC exemption.

42. An exemption that applies to 1% of electric vehicle/PHEVs in the fleet would forgo estimated revenue from RUC of $22 million per annum. This would need to be considered in the broader context of overall land transport revenue. An amendment to change the expiry date of the RUC exemption would require an Order in Council and could be implemented within six months.

43. Other adjustments could be made to the RUC exemption to further incentivise the uptake of electric vehicles/PHEVs. An overview is provided in Appendix 2. These adjustments would require an amendment to the Road User Charges Act 2012.

Reducing financial disincentives

44. A number of anomalies exist that act as financial disincentives for choosing electric/hybrid vehicles. These include:

- **PHEVs paying Accident Compensation Corporation (ACC) levies twice for some of their travel** – owners of PHEVs pay ACC levies as part of their annual licence fee (at the rate charged for diesel vehicles), as well as on a per litre basis when they fill up with petrol. While this is only estimated as an additional $20 to $40 per year, it has been perceived as unfair by some consumers. To address this, the ACC levy component of the annual vehicle licence fee for PHEVs could be reduced.

- **Unnecessary import duty on replacement batteries** – replacement batteries for electric/hybrid vehicles are subject to a 5% import duty which we understand is a result of historical protection of a domestic producer which no longer exists. This can add between $100 and $500 to battery replacement costs for electric/hybrid vehicle owners. It can be addressed by removing the import duty on batteries.

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\(^1\) Conventional hybrid vehicles that are powered by a regular internal combustion engine are not subject to a RUC exemption because they pay fuel excise duty on petrol.
- Fringe benefit tax acts as a disincentive to choose electric/hybrid vehicles – if an employee chooses an electric/hybrid vehicle for their company car, the employer benefits from reduced fuel costs, but the employee pays a higher rate of fringe benefit tax due to the higher upfront cost of the vehicle. The level of fringe benefit tax charged on the capital cost of electric/hybrid vehicles could be reduced.

45. While these measures are discrete and expected to make minimal difference to the total cost of ownership of electric/hybrid vehicles, they are disincentives and in some cases are unintended costs. We recommend that further work is undertaken with the ACC, Inland Revenue and MBIE to determine the most efficient process and time for addressing these anomalies. Note that these issues have not been raised with ACC and Inland Revenue at this stage.

Financial incentives

46. Aside from direct subsidies, feebates are another financial incentive used internationally to encourage the uptake of low emission vehicles. Under a feebate scheme a fee is charged or a rebate is provided (for example, up to $1,000) on purchase of a new vehicle depending on the vehicle’s level of fuel efficiency. Pure electric vehicles would attract the highest level of rebate. As rebates are funded by purchasers of high-emitting vehicles, there is zero impact on government revenue (assuming the system is designed well).

47. Feebate schemes have been recognised as an effective measure for reducing emissions from land transport, and are common practice in Europe (on the scale of €1,000 per vehicle) and California (up to $2,500 US). This option is a significant change in policy and would require considerable work to design and implement.

Preferred options for further work

48. Based on our preliminary analysis, we consider that a package of measures would be the most effective way to encourage the uptake of electric/hybrid vehicles in New Zealand.

49. The following measures appear to have potential and could be further analysed. If agreed, we will provide you with further advice on:
   - an extension or other adjustments to the RUC exemption
   - the factors affecting fleet purchasing decisions, based on discussions with key stakeholders, such as the New Zealand Fleet Managers Association and the SBC
   - potential scope and costs of an information and promotion campaign by EECA in partnership with industry
   - the feasibility of amending the all-of-government fleet procurement guidelines
   - the Government’s role in implementing a voluntary fuel economy standard
   - addressing financial disincentives relating to ACC levies, battery import duties and fringe benefit tax.

50. We also consider that there is value in investigating and providing advice on financial incentives. This will have to be undertaken over a longer time frame. We would ask that you indicate whether you would like us to do any further work in this area.

51. Should you agree to further work being undertaken, we will report back to you in April 2015 on progress.

Risks and Mitigations

52. At this stage we do not consider that there is significant risk in investigating and providing advice on potential options to encourage the uptake of electric/hybrid vehicles.

53. We will outline any specific risks and mitigations associated with the options in further advice. The Ministry of Transport notes that the speed with which it can progress further
analysis in this area is influenced by other transport priorities as indicated by the Minister of Transport.

Consultation

54. We have consulted with EECA, MBIE, and the Treasury on the drafting of this briefing note.

Next steps

55. If you agree, we will report back to you with a progress report in April 2015.

Recommendations

We recommend that you:

a) **Agree** that Ministers meet to discuss this paper and whether this should translate into budget priorities for 2015/16

   - [ ] Yes
   - [ ] No

b) **Agree** that the Minister of Transport advise the Minister for Climate Change of his decisions regarding the Ministry of Transport's transport and the environment work programme (OC02641)

   - [ ] Yes
   - [ ] No

c) **Note** that subject to the outcome of that discussion, Ministers direct officials to progress work on a potential package of measures to encourage the uptake of electric/hybrid vehicles, which will include advice on:

   a. An extension or other adjustments to the RUC exemption for electric vehicles/PHEVs

   b. The factors affecting fleet purchasing decisions, based on discussions with key stakeholders, such as the New Zealand Fleet Managers Association

   c. Potential scope and costs of an information and promotion campaign led by EECA in partnership with industry

   d. The feasibility of amending the all-of-government fleet procurement guidelines

   e. The Government's role in implementing a voluntary fuel economy standard

   f. Removing financial disincentives relating to ACC levies, battery import duties and fringe benefit tax

   - [ ] Yes
   - [ ] No
d) Note that, if you agree, we will report back to you in April 2015 on progress on the potential package of measures.

Erin Wynne  
Manager, People and Environment  
Ministry of Transport

Date 1 December 2014

Pauline Doherty  
Acting Director, Climate Change  
Ministry for the Environment

Date

Hon Simon Bridges  
Minister of Transport

Date 23 Jan 15

Hon Tim Groser  
Minister for Climate Change Issues

Date
Appendix 1: Electric and hybrid vehicles

1. There are four categories of electric and hybrid vehicles:

1.1. **Battery electric vehicles (EVs)**, which are wholly powered by batteries charged from external electricity supplies. The Nissan Leaf and Tesla S are examples of EVs.

1.2. **Range extended electric vehicles**: vehicles that use an on-board petrol engine to charge the batteries, rather than to power the wheels directly.

1.3. **Plug-in hybrid electric vehicles (PHEVs)**, which can run on either batteries or an internal combustion engine, or both. Importantly, they can travel on battery-power alone for a limited distance. The batteries in a PHEV can be charged from external electricity supplies and also by their on-board internal combustion engine (which is itself fuelled by petrol or diesel). Mitsubishi Outlander PHEV and Holden Volt are examples of PHEV.

1.4. **Hybrid vehicles**: these vehicles have an internal battery but cannot be directly plugged in, and must have petrol or diesel to run.

2. Conventional hybrid vehicles (such as the Toyota Prius) are powered by a regular internal combustion engine (which is fuelled by petrol or diesel) but they do have batteries to provide assistance. Importantly however, their batteries are only charged from re-capturing energy when braking (called ‘regenerative braking’) and they cannot be charged by plugging-in.

3. Hybrid vehicles typically use half as much fuel as their petrol and diesel equivalents. They are particularly efficient for city traffic where there are frequent stops, coasting and idling periods.\(^\text{12}\) This has made them particularly attractive to taxi operators.

4. Pure electric vehicles are four times more efficient than internal combustion engine vehicles. As at September 2014, there were about 350 electric and plug-in hybrid vehicles in the light vehicle fleet.

5. The cost to run an electric vehicle/PHEV is much lower than petrol vehicles, which is equivalent to buying petrol at 25 cents per litre (household prices for electricity).

\(^{12}\) Hybrid vehicles are less effective at reducing emissions when used for continuous high speed driving (e.g. highways and motorways).
### Appendix 2: Potential policies to encourage uptake of electric/hybrid vehicles

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<th>Potential option</th>
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<th>Effectiveness</th>
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<tr>
<td><strong>Information campaign</strong></td>
<td>Information campaign to overcome information barriers. A key audience would be fleet owners. We would undertake market research to ensure the campaign targets the right people on the right issues. Matched investment from industry through partnerships would be secured for marketing campaigns extending their reach.</td>
<td>The involvement of the government in the promotion of technology has been proven to encourage industry partners to join in with their own funding and marketing, and change behaviour.</td>
<td>Small scale = $400k per year over two years, indicative target 3,000 electric vehicles/PHEVs in NZ by end of 2016/17. Large scale = $1.7M per year over five years, indicative target 15,000 electric vehicles/PHEVs in NZ fleet by end 2019/2020.</td>
<td>Led by EECA in partnership with industry</td>
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<td><strong>Government support of vehicle charging infrastructure</strong></td>
<td>Government to fund installation of ‘demonstration’ vehicle charging infrastructure at highly visible locations nationwide.</td>
<td>Low cost option with high visibility Helps address concerns about practicality of electric vehicles for longer distance travel. May incentivise private installation of charging infrastructure (e.g. supermarkets, shopping malls, park and ride facilities).</td>
<td>Small number of installations with total one-off cost estimated at $100,000-200,000.</td>
<td>MOT and EECA</td>
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<td><strong>Government ‘leading by example’</strong></td>
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<td><strong>Amend rules/guidelines for government procurement of</strong></td>
<td>The government fleet includes over 20,000 vehicles, and about 3,500 to 4,000 are purchased new each year.</td>
<td>Provides evidence to the market for long term resale value and cost-effectiveness of electric/hybrid vehicles.</td>
<td>Comparable to cost of vehicles under current procurement rules in some vehicle ranges on total cost of ownership (e.g. cost of</td>
<td>Amendments to government procurement rules, guidelines and Fleet Strategy.</td>
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<tr>
<td>Potential option</td>
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<tr>
<td>vehicles</td>
<td>Include in procurement guidelines: 1. CO₂ emission targets set at level lower than average for the class of vehicle being purchased. 2. A set percentage of the vehicles purchased through the all-of-government contracts are to be electric/hybrid vehicles.</td>
<td>Proven to support import of new low emission vehicles into the New Zealand market for general purchase and flow on effect on the second-hand market over time and should have the same effect for electric/hybrid vehicles.</td>
<td>Nissan Leaf comparable to Toyota Corolla. May increase procurement costs in some vehicle ranges. Reduction in annual running costs of government vehicle fleet.</td>
<td>and EECA</td>
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<td>Demonstrations and trials</td>
<td>Providing government fleet owners and drivers with the opportunity to trial run electric vehicles.</td>
<td>It has already been done in Christchurch by EECA, and was shown to improve perceptions of electric vehicles and increase levels of uptake.</td>
<td>In the Christchurch trial the electric vehicles were provided free of charge by Mitsubishi via a partnership. There were some administrative costs associated, but these were relatively small.</td>
<td>EECA to implement in collaboration with central and regional government agencies and State Owned Enterprises</td>
</tr>
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</table>

| Government partnering with external organisations |

| Voluntary fuel economy target | Working with the Motor Industry Association to develop voluntary fuel efficiency target for the new vehicle industry | Impact across whole vehicle fleet. Gradual improvement of efficiency and emissions reduction for new vehicles. Low effectiveness but more benefit than status quo. | Minimal implementation cost for government. May be small cost to new vehicle buyers but this is likely to be minimised under a voluntary scheme. | MOT to facilitate (Minister of Transport meeting with MIA scheduled for 8 December 2014) |

| Reducing disincentives |

| Adjust ACC levy | Remove anomaly whereby PHEVs | Removes anomaly resulting in | Slightly reduced revenue for | Will require regulatory and legislative |

*OFFICIAL INFORMATION ACT*
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<th>Potential option</th>
<th>Explanation</th>
<th>Effectiveness</th>
<th>Cost (estimate)</th>
<th>Implementation</th>
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<tr>
<td>component of annual licence fee for plug-in hybrid vehicles (PHEVs)</td>
<td>pay ACC levies twice - through petrol purchases (9.2c/l) and annual licence fee (as if a diesel vehicle which has no ACC levy built into price). Reduce level of ACC levy payable by PHEVs at annual licensing in recognition that plug-in hybrids pay ACC levies at the petrol pump for around half their travel (estimated at around $20-$40 per year).</td>
<td>equitable ACC charging for PHEVs. Low value, so unlikely to be a strong incentive for purchasers. Effective &quot;nudge&quot; promotional tool as part of package of financial incentives.</td>
<td>ACC, balanced by current low number of PHEVs in fleet.</td>
<td>amendment. Likely to be technically difficult/time consuming. MOT responsibility, working with ACC</td>
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<td>Adjust fringe benefit tax</td>
<td>Reduce level of fringe benefit tax applied to capital cost of electric/hybrid vehicles provided to employees by organisations. (Currently the individual driver is taxed at the same rate as a conventional vehicle but the benefit of greater fuel efficiency accrues to the vehicle owner (lower fuel costs) and society (lower emissions).</td>
<td>Incentive for commercial fleets to invest in electric/hybrid vehicles which may have a higher capital cost than conventional vehicles (benefits to both employee and organisation). Note: commercial fleets currently purchase 70-80% of new vehicles in New Zealand.</td>
<td>Not costed - further work required.</td>
<td>Will require changes to income tax rules (IRD legislation). Likely to be time consuming. MOT responsibility, working with IRD</td>
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<tr>
<td>Adjust depreciation rates on electric/hybrid vehicles</td>
<td>Enable electric/hybrid vehicles to depreciate more quickly to reflect unknown resale value and maintenance costs (so depreciation rates for conventional vehicles may not be a good guide).</td>
<td>Unknown, but may remove the risk of purchasing electric vehicles for commercial fleets (70-80% of new vehicle purchases in New Zealand).</td>
<td>Not costed - further work required.</td>
<td>Likely to be technically difficult/time consuming.</td>
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<tr>
<td>Adjust or remove import duties on batteries compatible</td>
<td>Adjust or remove the 5% import duties on electric/hybrid vehicle batteries resulting in lower</td>
<td>Reduces cost of replacement batteries resulting in lower</td>
<td>Not costed - further work required.</td>
<td>MOT to work with MBIE and Customs</td>
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<td>Potential option</td>
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<td>with electric/hybrid vehicles</td>
<td>Batteries continue to attract an import duty, likely as a result of historical protection of a domestic producer which no longer exists.</td>
<td>Ongoing maintenance costs.</td>
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<td>Helps address concerns about reliability of battery packs (i.e. costs if battery pack failure requires full replacement) and therefore resale value.</td>
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<td>Financial incentives</td>
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<td>Extend Road User Charge (RUC)</td>
<td>Extend RUC exemption date for light electric vehicles to continue to recognise the role that these vehicles could play in reducing CO₂ emissions.</td>
<td>Assists current owners who onsell after 2020.</td>
<td>The original intention of the RUC exemption was it would only apply to up to 1% of the vehicle fleet.</td>
<td>Cabinet approved RUC exemption in May 2009, intended to apply until 1% of the light vehicle fleet is electric. Also approved ability to reassess the percentage of electric vehicles in the fleet and extend the exemption. Order in Council required to extend exemption date. Relatively quick to implement (approx. 6 months). MOT responsibility</td>
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<td>exemption</td>
<td>Timing of any extension to exemption date requires further consideration.</td>
<td>Provides average of $400-$700 savings in RUC per vehicle per year.</td>
<td>The estimate cost of exempting 1% of the light fleet from RUC is $22 million per annum. In real terms the marginal cost (in terms of damage to roads) of exempting a light vehicle from RUC may be lower.</td>
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<td>Exemption date has been extended once (to June 2020) since first set in 2013.</td>
<td>May require further promotion to impact on sales of electric vehicles.</td>
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<td>Other options for adjusting RUC</td>
<td>Other potential options include:</td>
<td>Option 1 softens impact of annual cost to run electric vehicles once exemption period expires.</td>
<td>Not costed - further work required.</td>
<td>Amendment to Road User Charges Act 2012 required</td>
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<td></td>
<td>1. Graduated RUC once exemption expires (e.g. year 1 after exemption electric vehicles liable for 25% of RUC; year 2, 50%; year 3, 75%).</td>
<td>All options provide more certainty about resale values (assists commercial fleets with depreciation).</td>
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<td>2. Lifetime exemption from RUC for electric vehicles first registered before a set date.</td>
<td>Incentivises ‘early adopters’ as highest savings occur in the short term.</td>
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<td>3. Lower rate of RUC for PHEVs</td>
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<tr>
<td>Potential option</td>
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<td><strong>Feebates</strong></td>
<td>On purchase of a vehicle a substantial fee is charged, or a rebate provided (e.g., up to £1,000), depending on the vehicle's level of CO₂ emissions. Electric vehicles would attract the highest level of rebate.</td>
<td>Strong incentive to purchase fuel-efficient vehicles. Very effective; would need to consider impacts on key economic sectors that use relatively inefficient vehicles (e.g., commercial, farming sectors).</td>
<td>As rebates are funded by the fee paid by purchasers of inefficient vehicles, there is zero impact on government revenue (assuming the system is well designed). However, some uncertainty about government revenue if uptake is higher than expected.</td>
<td>Very complex to develop. Major new policy, would require considerable work. MOT responsibility</td>
</tr>
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</table>
To: Hon Simon Bridges, Minister of Transport
From:  
Date: 1 December 2014
Through: Erin Wynne, Manager People and Environment

AIDE MEMOIRE

Subject: Zero Emissions Vehicles' suggestions to encourage electric commercial vehicles

1. This aide memoire contains our preliminary advice on the initiatives proposed by Andrew Rushworth, Managing Director of Zero Emissions Vehicles Limited (ZEV), in his letter to you dated 10 November 2014. The initiatives include:
   a. extending the current road user charges (RUC) exemption on electric vehicles under 3.5 tonnes to heavier electric vehicles
   b. providing for a higher rate of depreciation on the capital cost of class NB¹ battery electric vehicles
   c. active Government support for infrastructure development to support battery electric commercial vehicles, primarily commercial fast charging infrastructure.

2. We understand that ZEV's Enviro Series trucks weigh between 9 to 18 tonnes.

3. Should you accept Mr Rushworth’s invitation for a meeting, we can provide a further briefing and speaking points.

Key messages

4. As part of the Ministry of Transport’s work programme (OC02641 refers), we recommended that you agree for us to undertake further work on electric vehicles. This would include more detailed advice on the proposals above.

5. Extending the RUC exemption to include heavier vehicles would potentially be far more costly than the current exemption for light vehicles, and would be a further deviation from the user-pays model.

6. Providing for a higher depreciation rate on electric vehicles could incentivise their uptake, but may disadvantage operators that cannot utilise electric vehicles. It also conflicts with the principles of neutrality that underpin existing depreciation rates.

7. The cost to the Government of installing a national network of charging stations currently outweighs the benefits. The number and location of any Government funded charging facilities should likely be based on visibility or volume of electric vehicle traffic in the area.

8. As indicated in our briefing to you on opportunities to encourage the uptake of electric and hybrid vehicles (OC02683 refers), we would need to work with Treasury and Inland Revenue to assess these options.

¹ Vehicles for transporting medium goods, gross vehicle mass over 3.5 but not over 12 tonnes and used for short-term hire.
Extending the current RUC exemption on light electric vehicles to larger vehicles

9. Heavy vehicles cause a disproportionately high level of damage to roads compared to light vehicles and are charged considerably higher levels of RUC than light vehicles. While few heavy electric vehicles are expected for sale in the near future, their inclusion in an exemption could create a considerable financial incentive for their deployment, possibly resulting in higher-than-expected sales and RUC revenue losses.

10. In addition, bus services, electric or otherwise, are normally subsidised directly through local or central government.

11. Should you agree that the Ministry undertake further work on electric vehicles (OC02641), we would re-examine the potential costs of extending the RUC exemption and provide you with advice.

12. In 2009, during final preparation of the paper to seek Cabinet’s agreement to the RUC exemption for electric vehicles, the then Minister of Transport, Hon Steven Joyce, advised that the exemption was to be limited in time and scope and apply only for light vehicles. His view was that:

It is an important principle that all road users should pay the costs they impose on the roading network regardless of how those vehicles are powered. This is critical to ensure the continued development of our roading network. I would, therefore, not wish to see the exemption of light electric vehicles as setting a precedent for RUC exemptions. The proposed incentive for light electric vehicles is therefore transitory and limited in scope. It is envisaged that the longer term incentive to move to new fuel technologies will be in the emissions trading scheme.

Depreciation rates on the capital cost of battery electric vehicles

13. Depreciation rates are set to reflect the diminishing value of commercial assets over their economic lifespan. This loss of value is offset through an equal reduction in payable income tax. Accelerating depreciation rates could increase the rate at which assets are replaced.

14. Providing for a higher rate of depreciation on electric vehicles would advantage only taxpayers who are able to use an electric vehicle for their business. It would also require specific statutory intervention as it conflicts with the principles of neutrality that currently determine how depreciation rates are set.

15. This option is included in Appendix 1 of the briefing to you on options to encourage the uptake of electric and hybrid vehicles (OC02683 refers). We would need to work with the Internal Revenue Department to determine if this option is feasible and its potential costs.

Government support for commercial fast charging infrastructure

16. In our briefing to you on options to encourage the uptake of electric and hybrid vehicles (OC02683 refers), we advised that an information and promotion campaign could include the installation of ‘demonstration’ vehicle charging infrastructure at highly visible locations nationwide. Some of these ‘demonstration’ sites could include fast charging facilities for commercial vehicles.

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2 Light vehicle RUC (<3.5 tonnes) is $58 per 1000 kilometres. RUC for a type 2 vehicle between 9 and 12 tonnes (such as ZEV’s trucks) is $130 per 1000 kilometres.
17. We recommended that you discuss that briefing with the Minister for Climate Change, before directing officials progress work on a potential package of measures to encourage the uptake of electric/hybrid vehicles, which would include advice on (among other things) the scope and costs of an information and promotion campaign led by the Energy and Efficiency and Conservation Authority in partnership with industry. If you agree, we will report back to you on progress in April 2015.
ELECTRIC VEHICLES: MEASURES TO ENCOURAGE UPTAKE

<table>
<thead>
<tr>
<th>Reason for this briefing</th>
<th>This briefing responds to your request for advice by the end of March 2015 on measures that could form a package to encourage the uptake of electric vehicles in New Zealand in order to reduce greenhouse gas emissions.</th>
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<tr>
<td>Action required</td>
<td>Consider this paper and decide which measures should be progressed to form a package.</td>
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<td>Deadline</td>
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<td>Reason for Deadline</td>
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Contact for telephone discussion (if required)

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<td>Erin Wynne</td>
<td>Manager, People and Environment</td>
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MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 26 March 2015

Attention: Hon Simon Bridges (Minister of Transport)

Briefing Number: OC02885

Security level: In-Confidence

Minister of Transport’s office actions

☐ Noted
☐ Needs change
☐ Withdrawn
☐ Seen
☐ Referred to
☐ Not seen by Minister
☐ Approved
☐ Overtaken by events
Purpose of report

1. This briefing provides you with advice on a range of measures that could form a package to encourage the uptake of electric vehicles in New Zealand as a means to reduce greenhouse gas (GHG) emissions from transport.

2. We have provided a high-level analysis of each of the measures, designed to help you make a decision about which options you would like officials to progress.

3. In this briefing ‘electric vehicles’ refers to vehicles powered by electric batteries charged from an external source. This includes plug-in hybrid electric vehicles, but not conventional hybrids.¹

Structure of this report

4. This briefing contains a range of measures that you can choose from, and includes our recommendations about which ones we consider could be progressed (pages 6–13), deferred (page 14), or not progressed (page 14).

5. Supporting information to this briefing is contained in:

   5.1. Appendix A on page 19, which provides a summary of our recommendations for measures that could be included in a package, including information about the target audience and costs

   5.2. Appendix B on page 20, which contains a qualitative impact analysis of the measures that could be pursued for inclusion in a package

   5.3. the attached *Report on possible government measures to encourage the uptake of electric vehicles* (the attached report), which contains context for the role of electric vehicles in reducing GHG emissions, and further analysis of each of the measures in this briefing.

Executive summary

6. This briefing follows on from our previous advice and discussions with you regarding climate change and electric vehicles, particularly our teleconference of 23 January 2015. We noted that any policies dependent on the turnover of the vehicle fleet (such as accelerating the uptake of electric vehicles) may be effective at reducing emissions over a very long-term, but are unlikely to make a significant contribution to New Zealand’s 2020–2030 emissions reduction target.

7. You requested advice on a range of low-cost ‘nudges’ to encourage the uptake of electric vehicles, and measures to address the barriers to uptake. You asked officials not to submit advice on a specific package.

8. We recommend you instruct officials to progress the following three measures. These measures most clearly address identified market failures², and have the strongest case for government involvement based on our policy framework (see paragraph 43 of the attached report):

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¹ Conventional hybrid vehicles have an internal battery but cannot be directly plugged in, and must have petrol or diesel to run.

² Identified market failures in the context of electric vehicles include coordination problems, information problems, and trade barriers.
8.1. a campaign by the Energy Efficiency and Conservation Authority (EECA) to provide new information and promotion

8.2. government support (through branding, promotion and information) for the development of electric vehicle charging infrastructure built by the private sector

8.3. a trial of electric vehicles in the government fleet and inclusion of an electric vehicle class in the all-of-government vehicle catalogue used by government fleet buyers.

9. The total cost of the package above is approximately $9 million over 5 years, but could be higher or lower depending on level of ambition assigned to the measure.

10. We consider that further investigation of the following measures is a lower priority as either the rationale for government involvement is less clear, or the scale of the underlying problem is not yet that significant. However, if requested officials could progress a selection of the following measures as part of a package:

10.1. a programme to co-fund electric vehicle initiatives with local government and businesses

10.2. enabling electric vehicles to use bus and transit lanes

10.3. amending the road user charges (RUC) exemption for light electric vehicles

10.4. reviewing the method for calculating fringe benefit tax for electric vehicles

10.5. inviting stakeholders to discuss with tax policy officials the case for having higher depreciation rates for electric vehicles.

11. We recommend that the following measures be deferred as they are low value and could be progressed as part of other work programmes:

11.1. amending ACC levies for plug-in hybrid electric vehicles (PHEVs)

11.2. setting a specific RUC rate for PHEVs

11.3. removing electric vehicle battery import duties.

12. We recommend that analysis of the following measures be progressed as part of the Ministry’s wider Climate Change Work Programme, as the scope of these measures goes beyond that of electric vehicles⁴:

12.1. establishing a feebate scheme⁴ to encourage the purchase of low emission vehicles

12.2. recognising alternative low emission vehicle designs.

13. Measures proposed by third parties that we do not consider there is value in progressing are:

13.1. lowering or removing registration and annual vehicle licensing fees for electric vehicles

13.2. exempting second-hand electric vehicles from GST.

³ While these measures do not focus specifically on electric vehicles, they would complement electric vehicles policies.

⁴ Feebate schemes reward purchasers of low emissions vehicles with a rebate on the purchase cost while vehicles with higher emissions are charged a fee.
14. To inform our future advice to you we have commissioned two pieces of research. This research is due to be completed by 30 June 2015. This research covers fleet buyer purchasing decisions, and trends and developments in the price and supply of new and used electric vehicles into New Zealand.

15. In developing our advice, it is our view that the greatest influence on uptake will be the purchase price of electric vehicles relative to petrol and diesel vehicles. If battery costs fall slowly, electric vehicle uptake will remain low despite government measures to encourage uptake. The research that we have commissioned will help to determine the scale of this risk.

Background

Our previous advice on transport and climate change

16. In November 2014, we presented to you on environment issues in transport, including GHG emissions from vehicles. We advised that reducing GHG emissions from transport would require a range of measures. These could include encouraging uptake of electric vehicles, greater use of biofuels, research into alternative fuels, investment in public transport/active modes of travel, and intelligent transport systems.

17. In the short to medium-term, measures to improve the efficiency of the whole fleet (for example, fuel economy standards, feebates) are likely to be more effective than those that focus solely on electric vehicles. Such measures would encourage greater uptake of efficient petrol vehicles, hybrids, and electric vehicles.

18. On 28 November 2014, we provided you a briefing on a climate change work programme where a range of feasible options were considered. We will continue to progress the work set out in that programme.

Previous advice on electric vehicles

19. On 1 December 2014, the Ministry of Transport and the Ministry for the Environment provided you a briefing on options to encourage the uptake of electric/hybrid vehicles.

20. At our teleconference on 23 January 2015, you emphasised that we focus our analysis on low-cost ‘nudges’ and addressing barriers to the uptake of electric vehicles. You asked us to provide you with a list of measures to choose from, rather than recommending a set package. Accordingly, this briefing provides our advice and recommendations regarding individual measures, but not any specific package.

Engagement with the private sector

21. Officials met with Mighty River Power and the Sustainable Business Council on 12 February 2015 to hear their views on the barriers to electric vehicle uptake, and measures to help overcome them. Many of those measures are considered in more detail in this briefing.

Opportunities and barriers to increase the uptake of electric vehicles

22. Officials have previously advised you and the Minister for Climate Change Issues of the opportunities and challenges for increased uptake of electric vehicles in New Zealand (see paragraphs 33–39 of the attached report).
23. We noted that any policies dependent on the turnover of the vehicle fleet (such as accelerating the uptake of electric vehicles) may be effective at reducing emissions over a very long-term, but are unlikely to make a significant contribution to New Zealand’s 2020–2030 emissions reduction target. Therefore adopting a package of measures to achieve higher electric vehicle uptake represents an investment for the long-term, and may assist in the achievement of longer-term emissions targets.

24. Government is limited in what it can directly do to address some of the barriers to the uptake of electric vehicles, such as their higher upfront purchase price, lack of model choices compared to other markets, and (travel) range limitations. These barriers are expected to reduce over time through cost reductions and improved battery technology, although the rate of change is uncertain.

25. There is a clearer role for government intervention to address market failures affecting uptake, such as in helping to resolve:

25.1. coordination problems – for example, addressing any issues to ensure that the necessary infrastructure is in place ahead of demand in order to encourage uptake

25.2. information problems – for example, lack of awareness and misconceptions about electric vehicles, and uncertainty about the total cost of ownership (including maintenance costs, battery life and residual values)

25.3. trade barriers – for example, the removal of import duties on a broad range of environmental goods (which could include electric vehicles and batteries) in the context of the negotiations towards a global Environmental Goods Agreement in the World Trade Organisation (WTO).

26. As well, we have identified several instances of possible regulatory failure (for example, ACC levies and road user charges for PHEVs). These regulatory failures are currently small in scale, but left unaddressed may ‘nudge’ motorists away from choosing electric vehicles.

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5 Our modelling indicates that doubling the uptake rate of electric and hybrid vehicles over the next 25 years (compared to business-as-usual baseline) could result in emissions reductions of 7 percent in the transport sector by 2040.

6 Regulatory failure in the context of this briefing refer to situations where government charges, taxes or levies inadvertently disadvantages electric vehicles relative to other vehicles.
Measures that we recommend be progressed

27. Below are short summaries of the three measures that we recommend are prioritised for further investigation. More detailed analysis of each measure can be found in the attached report, including an initial assessment of alternative ways in which these measures could be progressed. The attached report also identifies in more detail the potential risks associated with each measure.

28. Appendix B provides a qualitative impact analysis of the measures proposed in this paper. This analysis shows the advantages of the measures that we recommend pursuing, relative to others that could be adopted.

Measure 1: Energy Efficiency and Conservation Authority (EECA) information and promotion campaign

29. Through a campaign, EECA would target the market segments most likely to respond to information and promotion (for example, fleet owners and lease companies, large businesses, and government agencies). This could involve directly marketing to, and building long-term partnerships with corporate fleet managers.

Rationale for this measure

30. EECA’s engagement with a number of light vehicle fleet owners has identified significant information barriers around electric vehicles. This included a lack of awareness about the availability of electric vehicles, a lack of information on the total cost of ownership, and misconceptions.

31. An information campaign would address these information barriers and also enhance the visibility of other measures to address barriers and incentivise the uptake of electric vehicles. Given that electric vehicles are a long-term option for reducing GHG emissions, we recommend pursuing a campaign that seeks long-term change.

Implementation considerations and costs

32. A long-term campaign would be around 5 years long and could require funding of up to $1.7 million per year depending on the nature of agreed measures and further work on their design and implementation. Officials would need to consider the impacts of different funding options (for example, a new budget bid or reprioritisation) before making final recommendations to you.7 A campaign could be scaled to fit funding availability (that is, it could be delivered with a more limited reach at a lower cost or over fewer years).

33. EECA and the Ministry of Transport have commissioned market research to better understand what drives fleet buyers’ decisions. This research is due to be completed by 30 June 2015, and will inform future advice to you and any information campaign by EECA.

Links to other measures

34. EECA advises that extending the RUC exemption, government fleet procurement, and reviewing fringe benefit tax and tax depreciation rates for electric vehicles, are important for its work with fleet buyers. Fleet buyers would be far more responsive to an EECA led information and promotion campaign if they see the Government taking clear steps to encourage uptake. EECA advises any campaign would be less effective in the absence of action on these issues.

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7 EECA notes that reprioritising Crown funding for encouraging energy efficiency and conservation to cover the cost of an electric vehicle campaign would likely impact on the delivery of its other programmes and initiatives.
Measure 2: Government support for charging infrastructure

35. The private sector is investing in charging infrastructure. The Electricity Networks Association has announced plans to study if a ‘renewable highway’ providing nationwide infrastructure for charging is possible. This is driven by Mighty River Power’s plans to partner with other electricity industry players to invest in a ‘renewable highway’ of electric vehicle fast-charging stations. Other private sector parties (such as JuicePoint and the private equity group behind Charge.net.nz) are also looking to provide more charging infrastructure. This does not require Crown funding.

36. Government involvement in establishing this network would primarily be through branding and promotional support to facilitate a cohesive network. There is likely to be a role for Government in supporting independent players (for example, local governments, retailers, and motel owners) who are seeking advice about installation of charging infrastructure.\(^8\)

37. The Government could also fund or co-fund the installation of fast charging stations in locations where it is not commercially viable for the market to do so\(^9\), or at central or local government owned locations/buildings where charging facilities would support electric vehicle use.

Rationale for this measure

38. Government support for charging infrastructure would primarily address coordination problems. The private sector is looking to lead the development of the charging network. Government involvement would help maximise the value of private investment by ensuring that the network is visible and cohesive.

Implementation considerations and costs

39. Branding and information material to support the development of a network of charging infrastructure could be developed within 12 months.

40. More work would be required to establish the costs of providing this support. It is possible that branding, promotion and information support could be funded through reprioritisation. If the Government wanted to fund or co-fund the charging infrastructure itself, a budget bid would be required to request Crown funding.

Links to other measures

41. Branding, promotion and information could be funded through an EECA campaign (see measure 1 above) or as a stand-alone programme. Although it is not one of our preferred options, the Government could co-fund, charging infrastructure from the proposed electric vehicle programme (see measure 4 below), if that measure is progressed.

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\(^8\) For example, providing advice on standards, any necessary consents, and health and safety issues.

\(^9\) This would be more effective once we see if there are gaps in the network that the market cannot fill.
Measure 3: Government fleet procurement of electric vehicles

42. This measure could involve a trial of electric vehicles in the government vehicle fleet and establishing a specific class for electric and hybrid vehicles in the all-of-government vehicle catalogue (managed by the Ministry of Business, Innovation and Employment (MBIE)).

43. An indicative trial could be 1 to 3 years long and involve the Government covering the additional purchase costs of a number of electric vehicles in the fleet, as well as covering monitoring and reporting costs.

Rationale for this measure

44. A trial would greatly assist to fill information gaps around the whole-of-life cost associated with electric vehicles (identified as the key risk for fleet managers), and demonstrate their functionality in New Zealand fleets. This information would help reduce risk by informing Government and corporate fleet purchasers about key uncertainties, such as likely resale value, and maintenance and replacement costs. The NZ Transport Agency has offered to assist with disseminating this information if required.

45. The information obtained through a trial would help to inform future decisions around more ambitious measures to incentivise the uptake of electric vehicles in the government fleet.

46. While Mighty River Power has plans to incorporate electric vehicles in its fleet over the next 2 years, we consider that a government trial would provide impartial and additional information. It would also demonstrate government commitment to the uptake of electric vehicles in New Zealand, and lend credibility to any other government action on electric vehicles.

47. A dedicated vehicle class would make electric and hybrid vehicles more visible to fleet managers and ensure manufacturers of electric vehicles are included in the all-of-government contract, and are able to negotiate a lower price of supply.

Implementation considerations and costs

48. We estimate that a trial of 24 electric vehicles in four fleet locations around New Zealand could cost around $500,000 (for incremental costs\(^{10}\) only). This would require a budget bid.

49. Including an additional vehicle class in the all-of-government catalogue may require MBIE to undertake an additional tender process for this component of the contract.

Links to other measures

50. We consider that action on government fleet procurement would enhance the effectiveness of any other measures by demonstrating the government’s commitment to electric vehicles.

\(^{10}\) These are costs over and above what fleets would normally pay to procure their vehicles.
Measures that could be investigated further

51. Listed below are short summaries of measures which officials could investigate further, but recommend be given a lower priority as the rationale for government intervention is less clear.

Measure 4: An electric vehicle programme to co-fund initiatives with other parties

52. We could investigate establishing an electric vehicle programme. This programme would co-fund projects with either businesses or local communities, which seek to address market failures/Barriers that are limiting the uptake of electric vehicles. This could include, for example, the installation of electric vehicle charging stations, electric vehicle trials, and demonstration days.

53. Auckland Transport’s recent announcement of a Request for Proposal from car share operators to launch an electric vehicle scheme in Auckland is also an example of the type of project that could be co-funded by an electric vehicle programme. See paragraphs 89 of the attached report for further examples.

Rationale for this measure

54. An electric vehicle programme could potentially address some coordination problems, such as the need for charging infrastructure to be in place ahead of demand, and the lack of awareness and misconceptions around electric vehicles.

55. The advantage of this approach is that it would encourage innovation by giving local government and private sector organisations the flexibility to determine the types of projects that are most appropriate for particular market conditions and/or their local communities.

Implementation considerations and costs

56. An electric vehicle programme funded by the Crown would require a budget bid. The level of funding made available, and over what period, could vary depending on the level of ambition assigned to the programme. As an example, a programme in the order of $2 million over 2 years could be used to co-fund 8 to 10 trials, demonstrations or small infrastructure projects (for example, charging stations).

57. If you agreed to progress an electric vehicle programme, we would provide further advice on the design and implementation of this measure.

Links to other measures

58. The programme could also be used to co-fund some of the other potential measures discussed in this briefing, such as charging infrastructure (measure 2 above).
Measure 5: Electric vehicles in bus and transit lanes

59. Consideration could be given to removing the regulatory barriers that prevent road controlling authorities (RCAs) from allowing electric vehicles into bus and transit lanes. This would require amending two land transport Rules and potentially the Land Transport Act 1998.

60. Under this option, RCAs would maintain the flexibility to choose which bus and transit lanes electric vehicles could access, allowing them to manage transport priorities along a corridor, including electric vehicle promotion and network efficiency.

Rationale for this measure

61. This relatively low cost measure would primarily act as an incentive. As an incentive, it is considered to be of high value to drivers relative to other common electric vehicle incentives.

Implementation considerations and costs

62. The NZ Transport Agency expects that RCAs are unlikely to be interested in granting electric vehicles access to bus and transit lanes. The NZ Transport Agency expects RCAs will share its reservations about the potentially negative impact on network efficiency of having electric vehicles in bus and transit lanes (that is, vehicle congestion and bus reliability). For this reason, it would be important to discuss this measure with RCAs prior to any announcement or decision.

63. We consider that there are practical, low-cost ways to assist with the identification of electric vehicles, and enforcement of this measure. We would discuss these issues further with the NZ Transport Agency and NZ Police should you choose to progress this measure.

64. This measure would add costs (the level of which is yet to be determined) to central and local government in terms of planning, monitoring, and implementing road marking and signage. We do not expect that identification of electric vehicles, or enforcement around lane use, would pose significant challenges or costs.

Links to other measures

65. This measure has no direct links to other measures included in this briefing.
Measure 6: Road user charges (RUC) exemption for electric vehicles

66. If you wish to continue the RUC exemption as a subsidy for electric vehicles beyond 2020, we recommend consideration be given to introducing an exemption for light electric vehicles from the date each vehicle is registered in New Zealand, for a finite period (for example, 5 years). This option would require a change to the Road User Charges Act 2012.  

67. A RUC exemption for light electric vehicles would be from the date they are first registered. The finite period of time would help manage the cost of foregone revenue. It would also be more equitable than the current exemption (a blanket exemption to 2020) because owners of electric vehicles would begin contributing towards the development and operation of land transport system after the finite period ended.

68. If you wish to extend the RUC exemption but not make changes to the Road User Charges Act, you could amend the end date for the current RUC exemption (30 June 2020) by Order in Council (for example, to 30 June 2025). We would provide you with further advice on an appropriate end date should you choose to pursue this option.

Rationale for this measure

69. A RUC exemption would be an incentive to potential electric vehicle buyers. Based on current vehicle and fuel prices, the RUC exemption is an important factor in determining whether the total cost of ownership for electric vehicles is competitive with comparable petrol and hybrid vehicles.

70. In our meeting of 23 January 2015, you asked about extending the RUC exemption to heavy vehicles. We do not recommend extending a RUC exemption or discount to heavy electric vehicles. Heavy vehicles do significantly more damage to the roads than light vehicles, and therefore have a greater impact on maintenance costs. It would also be a further deviation from the user pays model, and is likely to face political resistance.

Implementation considerations and costs

71. The cost of an exemption from date of purchase would be relatively low in the context of total RUC revenue (but potentially much higher than many of the other measures in this briefing). The cost of exempting 1 percent of the light vehicle fleet from RUC is approximately $22 million per year out of approximately $3 billion (in 2015 figures). Currently, electric vehicles make up just 0.02 percent of the fleet and based on our modelling, we would expect to see 30,000 electric vehicles (or about 1 percent of the fleet) in the New Zealand fleet by 2033 under a ‘status quo’ scenario.

72. If you instruct officials to progress introducing a RUC exemption or discount for heavy vehicles, we would need to consult with industry to consider their views on the matter and the potential effect on uptake. This information would inform the likely costs of extending the RUC exemption to heavy vehicles. This option also would require a change to the Road User Charges Act 2012.

Links to other measures

73. EECA advises that continuation of the RUC exemption is important for its work with fleet buyers and would enhance the effectiveness of any information and promotion campaign.

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11 Section 37 of the Road User Charges Act 2012 allows the Governor-General to, by Order in Council, specify the period during which road user charges are not payable in respect of light electric vehicles. An Order made under section 37 of the RUC Act must specify the date on which the exemption expires, and may, from time to time, be amended to provide for a later date.
Measure 7: Fringe benefit tax on electric and hybrid vehicles

74. Electric and hybrid vehicles attract a higher amount of fringe benefit tax as their purchase prices are higher than those of equivalent conventional vehicles. For the purposes of fringe benefit tax, the annual taxable value of an employee’s vehicle benefit is calculated as either 20 percent of a vehicle’s cost price, or 36 percent of its book value. These proportions are proxy estimates of the fixed and running costs that the employee would bear if they owned the car themselves.

75. A potential issue with the fringe benefit tax regime could be the method for calculating the taxable value of the fringe benefit. Despite the expectation that the purchase price of electric vehicles will continue to fall over time, it is unlikely that the price will fall below that of conventional vehicles in the foreseeable future. This brings a risk that the tax calculation will not take into account the fact that electric vehicles may have lower running costs than conventional vehicles. Where this happens, the calculation will overvalue and therefore overtax the fringe benefit as the lower running costs of electric and hybrid vehicles will not be adequately recognised.

Rationale for this measure

76. To address this risk, we recommend that a review is conducted within the next 2 years of the basis for calculating the taxable value of the fringe benefit for electric vehicles. This review would ensure that the lower running costs of these vehicles are adequately recognised.

77. A review of the fringe benefit tax would identify the existence and scale of any regulatory failure whereby the tax calculation may overvalue and therefore overtax the fringe benefit of electric and hybrid vehicles.

78. The Sustainable Business Council and Business NZ also consider that exempting electric and conventional hybrid vehicles from fringe benefit tax would have a significant ‘nudge’ effect on the purchase decisions of fleet managers. Little is known, however, about the extent to which fleet purchase decisions are being influenced by fringe benefit tax as opposed to other barriers (such as the limited travel range of pure electric vehicles).

Implementation considerations and costs

79. There may be value in conducting a review sooner given stakeholders’ views on the issue. We suggest discussing the timing of any review of fringe benefit tax for electric and hybrid vehicles with the Minister of Revenue, Hon Todd McClay. Tax policy officials are open to undertaking this review, but note that it would have to be prioritised against other items on the Government’s tax policy work programme.

80. A review would not incur additional costs to the Government.

Links to other measures

81. EECA advises that addressing fringe benefit tax on electric vehicles is important for its work with fleet buyers, and would enhance the effectiveness of any information and promotion campaign.
Measure 8: Tax depreciation rates for electric vehicles

82. You could consider inviting relevant industry groups (for example, Drive Electric and electric vehicle manufacturers) to discuss with tax policy officials the case for having higher depreciation rates for electric vehicles. We could facilitate these discussions. It would be expected that the industry would prepare an economic case to support its arguments for a higher rate of depreciation.

83. Currently, the depreciation rate for passenger vehicles is the same for conventional and electric vehicles. However, we understand companies that calculate residual vehicle values are making low estimates for electric vehicles' residual value due to the uncertainty around resale. This acts as a disincentive to fleet buyers. Buyers perceive that the total cost of ownership over a 5 year period will be higher for electric vehicles than for fuel efficient conventional vehicles, but they are unable to deduct the tax on the additional cost from their annual taxable earnings.

Rationale for this measure

84. The policy principle behind tax depreciation is that the deduction should match the economic life of the asset. Within these parameters, and keeping in mind the principles of New Zealand tax system, there may be a case to consider whether the current tax depreciation rate that applies to the entire New Zealand passenger vehicle fleet is appropriate for electric passenger vehicles.

85. The concern identified by relevant industry groups is a question about the timing and value of depreciation deductions rather than a permanent tax effect. When the asset is disposed of, the Income Tax Act 2007 requires a wash-up to calculate if the relevant tax depreciation rate has correctly spread the cost of the asset over its economic life.

86. Tax policy officials advise that proposals for accelerated depreciation would be inconsistent with the Government’s revenue strategy, which supports a broad-base, low-rate tax system and generally eschews tax concessions.

Implementation considerations and costs

87. Depreciation rates for electric passenger vehicles are not administratively determined by Inland Revenue and any work on this issue would need to be prioritised against other items on the Government’s tax policy work programme.

88. Further investigation of this issue would not incur additional costs to the Government.

Links to other measures

89. EECAs advises that addressing tax depreciation rates on electric vehicles is important for its work with fleet buyers, and would enhance the effectiveness of any information and promotion campaign.
Measures to be progressed outside of the package

90. We have assessed the following measures as having merit, but being more suitable to be progressed as either part of policy work scheduled for 2015, or part of wider reviews undertaken by the Ministry of Transport or other departments over the next couple of years.

90.1. Amending ACC levies for PHEVs to remove the overcharge.

90.2. A specific RUC rate for PHEVs.

90.3. Removing battery import duties.

90.4. A feebate\textsuperscript{12} scheme to encourage the purchase of low emission vehicles.

90.5. Recognition of alternative low emission vehicle designs.

91. These measures are discussed further in the attached report.

Measures proposed by third parties that we do not consider worth progressing

92. We consider that the following measures to incentivise the uptake of electric vehicles are not worth progressing:

92.1. lowering registration and annual vehicle licensing fees for electric vehicles – this measure would not provide sufficient economic value to act as an incentive and does not address any specific market or regulatory failure.

92.2. exempting second-hand electric vehicles from GST – this measure is likely to be politically difficult to progress, and would undermine the principles of New Zealand tax system without addressing any specific market or regulatory failure.

Relevant research underway

93. Several pieces of research currently underway will help to inform further advice around electric vehicle and options for reducing transport emissions.

<table>
<thead>
<tr>
<th>Research focus</th>
<th>Owner</th>
<th>Findings due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trends and developments in the price and supply of new and used electric vehicles into New Zealand – implications for uptake</td>
<td>Ministry of Transport</td>
<td>30 June 2015</td>
</tr>
<tr>
<td>The factors influencing fleet buyers’ vehicle purchase decisions</td>
<td>EECA and Ministry of Transport</td>
<td>30 June 2015</td>
</tr>
<tr>
<td>The future of transport – examining habitual patterns, and what needs to change to support changes in transport behaviour</td>
<td>University of Otago</td>
<td>September 2016</td>
</tr>
<tr>
<td>Reducing fossil fuel consumption in the light vehicle fleet (contestable funding – research beginning 2015)</td>
<td>MBIE</td>
<td>2017 to 2019</td>
</tr>
</tbody>
</table>

94. The Ministry of Transport and EECA research should enable us to better forecast electric vehicle uptake, and thus assess the potential impact government measures or interventions might have. The research will also inform the design and implementation of measures adopted to encourage uptake of electric vehicles.

\textsuperscript{12} Under a feebate scheme, a fee is charged or a rebate is provided on purchase of a new vehicles depending on the vehicle’s level of fuel efficiency.
Risks

95. The purchase price of light electric vehicles relative to petrol and diesel vehicles has the greatest influence on electric vehicle uptake. If battery costs come down, we expect the relative cost of electric vehicles to fall and the rate of uptake to increase.

96. Experts generally agree that battery prices will continue to fall, but disagree on how much and how quickly. If battery costs fall slowly, electric vehicle uptake will remain low despite government measures to encourage uptake.

97. We have commissioned research that will help us to better understand this risk, and quantify the likely costs and benefits of government measures with greater precision. We consider that the analysis in this briefing is sufficient to make a decision about which options to investigate further. However, we caution against making a final decision on a package of measures until the results of this research have been considered.

98. Promotion of electric vehicles alone could attract perceptions of unfairness from producers and consumers of other products that help to reduce transport GHG emissions (for example, producers of hydrogen fuel cell vehicles and electric bikes).

99. We can provide you with key messages to mitigate this and other risks once we know which measures you wish to pursue as part of a package to encourage uptake of electric vehicles.

Consultation

100. We have consulted EECA, the NZ Transport Agency, Treasury, MBIE, MfE, the Ministry of Foreign Affairs and Trade, the New Zealand Customs Service and the Inland Revenue Department on this briefing.

101. MFAT advises that, based on the available information, some of the proposed measures (for example, financial incentives, some government procurement initiatives) may impact on New Zealand’s international obligations under the WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement). While no proposal appears to be a ‘prohibited subsidy’ under the SCM Agreement, they may be a ‘notifiable subsidy’ and would therefore require New Zealand to include them in annual reporting to the WTO. If a subsidy causes adverse effects on the interest of another WTO member, the subsidy could be subject to challenge under the SCM Agreement (that is, an ‘actionable subsidy’).

Treasury comment

102. You asked us to work with the Treasury on providing advice on electric vehicles, and to consider the possibility of providing joint advice.

103. Treasury recommends that any package of interventions to encourage electric vehicles uptake focuses on an information and promotion campaign through EECA. It recommends that funding for this should be reprioritised from the $16.6 million per annum the Crown currently spends encouraging energy efficiency and conservation.

104. It is promising that the private sector will establish a ‘renewable highway’ of fast-charging without government intervention. Providing branding and promotional support to the project through EECA could be a useful contribution from the Government.

105. Treasury supports encouraging regional authorities to consider allowing electric vehicles into bus and transit lanes. However, it notes that this involves a trade-off with transport network efficiency that authorities would need to assess. It agrees that tax issues around electric vehicles should be explored further to ensure the tax treatment of electric vehicles is appropriate.
106. Treasury does not recommend that a package include the other options explored in this paper, for the following reasons:

106.1. An electric vehicle programme would add complexity and administrative costs. Instead, significant new proposals that arise could be considered on a case-by-case basis.

106.2. A trial of electric vehicles in the government vehicle fleet does not appear necessary, because Mighty River Power’s electric vehicle trial should fill information gaps about using electric vehicles in New Zealand fleets. EECA’s campaign could ensure that any lessons learnt from Mighty River Power are communicated widely. It may also be useful to ensure that the government procurement process has the right information to consider electric vehicle fleet options, and is not overly risk averse.

106.3. A time-limited RUC exemption for new electric vehicles would not address the information and coordination problems that the Ministry of Transport identifies. Also, the cost per vehicle exempted is high and most of the benefits go to high income households.

Next steps

107. The Ministry of Transport will continue to engage with other departments and stakeholders (such as Mighty River Power, the Sustainable Business Council, and Drive Electric) on electric vehicles while we await your decision on which measures to include in a package.

108. Cabinet has requested that financial matters not be considered outside the budget cycle unless urgent. If your agreed package of measures has financial implications, these will need to be included in the Ministry of Transport’s four year plan by the end of October 2015.

109. Once you have made a decision about which measures you would like officials to progress, we will provide further advice. This is expected to involve seeking Cabinet decisions on the necessary policy and financial issues prior to the finalisation of the Ministry of Transport’s four year plan. We will discuss the timing of this paper with you.

110. The Minister for Climate Change issues, Hon Tim Groser, has expressed an interest in electric vehicles and has previously received advice on their role in reducing GHG emissions. We recommend that you forward a copy of this briefing to Hon Groser for his information. You may also wish to forward this briefing to the following Ministers because of the potential implications for their portfolios:

110.1. Minister of Commerce and Consumer Affairs, Hon Paul Goldsmith (battery tariffs)

110.2. Minister of Customs, Hon Nicky Wagner (battery tariffs)

110.3. Minister for ACC, Hon Nikki Kaye (ACC levies for PHEVs)

110.4. Minister of Revenue, Hon Todd McClay (fringe benefit tax and depreciation).
Recommendations

111. The recommendations are that you:

(a) note that policies seeking to increase the uptake of electric vehicles as a means to reduce greenhouse gas emissions ultimately depend on the turnover of the vehicle fleet, and although they are likely to be effective over a very long-term, they are unlikely to make a significant contribution to New Zealand’s 2020–2030 emissions reduction target

(b) direct officials to prepare a Cabinet paper on the following measures:

1. an Energy Efficiency and Conservation Authority (EECA) information and promotion campaign

2. government branding, promotion and information support for public charging infrastructure

3. a trial of electric vehicles in the government fleet, and the inclusion of specific class for electric and hybrid vehicles in the all-of-government vehicle catalogue

(c) consider the other five measures that we advise be given lower priority and indicate which, if any, you would like officials to include in the Cabinet paper:

1. an electric vehicle programme to co-fund initiatives with local government and businesses

2. enabling electric vehicles to use bus and transit lanes

3. amending the road user charges (RUC) exemption for light electric vehicles

4. reviewing the basis for calculating fringe benefit tax for electric vehicles

5. inviting stakeholders to discuss with tax policy officials the case for having higher tax depreciation rates for electric vehicles

(d) note that we will provide you with further advice by 31 August 2015 to enable any financial implications from your decisions to be included in the Ministry of Transport’s four year plan and if necessary considered as part of Budget 2016

(e) note that the following measures will be progressed outside of a package for electric vehicles: further investigation into amending ACC levies for plug-in hybrid electric vehicles (PHEVs), setting a RUC rate for PHEVs, removing battery import duties, a feebate scheme, and recognition of alternative low emission vehicle designs

(f) agree that the Ministry of Transport consult with transport and energy industry stakeholders to further investigate the measures you selected in (b) and (c)

(g) agree that lowering registration and annual vehicle licensing fees for electric vehicles, and exempting second-hand electric vehicles from GST not be progressed
(h) **agree** to forward a copy of this briefing to:

1. the Minister for Climate Change Issues  
   - [ ] Yes  
   - [ ] No

2. the Minister of Commerce and Consumer Affairs (battery tariffs)  
   - [ ] Yes  
   - [ ] No

3. the Minister of Customs (battery tariffs)  
   - [ ] Yes  
   - [ ] No

4. the Minister for ACC (ACC levies for PHEVs)  
   - [ ] Yes  
   - [ ] No

5. the Minister of Revenue (fringe benefit tax and depreciation)  
   - [ ] Yes  
   - [ ] No

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**Adviser**

Adviser

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Erin Wynne
Manager, People and Environment

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Withheld under section 9(2)(a) of the Official Information Act 1982

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**MINISTER’S SIGNATURE:**

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**DATE:** 27/4/15
## Appendix A – Summary of key information on each measure

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target audience</th>
<th>Summary of advice</th>
<th>Implementation considerations</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EECA information and promotion campaign</strong></td>
<td>Fleet owners, lease companies, large businesses, and government bodies.</td>
<td>We recommend that any package should include an information and promotion campaign by EECA as a central component. A campaign would address information barriers and enhance the visibility of other measures to address barriers to uptake. Given that electric vehicles are a long-term option for reducing GHG emissions, we recommend pursuing a campaign that seeks long-term change.</td>
<td>Relatively easy and quick (less than 6 months) to implement once funding is confirmed.</td>
<td>Possible range: $800,000 over 2 years for ‘quick win’, to $8.5 million over 5 years for a campaign that seeks long-term change.</td>
</tr>
<tr>
<td><strong>Government support for charging infrastructure</strong></td>
<td>Fleet buyers and motoring public.</td>
<td>We recommend that government support the private sector to establish a network of fast-charging stations by offering broadening information and promotion support as part of a campaign by EECA or as part of an electric vehicle programme (if you agree to pursue this measure).</td>
<td>Relatively easy and quick (less than 6 months) to implement once funding is confirmed.</td>
<td>Costs would be covered by information and promotion campaign and/or electric vehicle programme if those options were pursued.</td>
</tr>
<tr>
<td><strong>Government fleet procurement</strong></td>
<td>Central government in the first instance, but also other fleet buyers generally.</td>
<td>We recommend trialling electric vehicles in the government fleet. An electric vehicle trial would provide valuable information to government and private fleet buyers, and enhance the credibility of any other government action on electric vehicles. More aggressive options for government fleet procurement would be revisited following a trial. We also recommend a new electric and hybrid vehicle class be included in all the all-government vehicle fleet catalogues. This would lift the profile of electric vehicles to fleet managers and ensure that manufacturers of electric vehicles are included in the all-government contract, and are able to negotiate a lower price of supply.</td>
<td>Moderate effort to implement once funding is confirmed. Could be established within 6–12 months.</td>
<td>To be confirmed, $500,000 is estimated to cover the incremental cost of 24 vehicles in four government fleet locations.</td>
</tr>
</tbody>
</table>

### Measures that could be investigated further

- **An electric vehicle programme to co-fund initiatives with local government and businesses**
  - Local authorities and businesses (chiefly in the transport, energy and tourism sectors)
  - We recommend that consideration be given to an electric vehicle programme or fund (modelled on the Urban eCycles Program) that would co-fund projects that encouraged the uptake of electric vehicles. This would encourage the market and local communities to develop innovative projects to address the market failures/barriers that are limiting the uptake of electric vehicles.
  - Moderate effort to implement once funding is confirmed. Could be established within 6–12 months. Depends on level of ambition. We consider that $2 million over 2 years could co-fund 8–10 trials, demonstrations or small infrastructure projects.

- **Electric vehicles in priority lanes**
  - Fleet buyers and motoring public
  - Consideration could be given to removing the regulatory framework preventing road control authorities from allowing electric vehicles in bus and transit lanes. This option would give road controlling authorities the flexibility to allow electric vehicles in priority lanes, while still minimising the risk that doing so undermines network efficiency.
  - Advice on Rule changes would take approximately 9 months (includes consultation). Effort required to implement would depend on uptake by road controlling authorities.
  - Costs to local and central government would involve:
    - Infrastructure (road marking and signage)
    - Communications
    - Planning and monitoring costs.
  - There is also the risk of costs from any loss of network efficiency.

- **Exemption or discount from road user charges (RUC) for electric vehicles**
  - Fleet buyers and motoring public.
  - A RUC exemption for electric vehicles does not address an identified market or government failure; it is an indirect subsidy. Any exemption raises a variety of equity concerns and carries the risk that the overall cost cannot be made accurate (or indeed it will be demand driven).
  - If the Government is open to pursuing an amendment to the Road User Charges Act 2012, we recommend that consideration is given to introducing a RUC exemption for light electric vehicles from the date of first registration in New Zealand, for a specific period of time (for example, 5 years).
  - Any option that requires an amendment to the Road User Charges Act 2012 would require a relatively high level of effort to implement. Extending the date of the exemption by Order in Council would be relatively easy and quick (within less than 6 months) to implement.
  - Revenue foregone under the current RUC exemption is $230,000. At 1% of the light vehicle fleet (~30,000 vehicles), the implied revenue loss is more than $20 million at current RUC rates.
  - No data is available on the actual number of electric vehicles as on roads and how much they weigh so any costs have been estimated.

- **Review of the method for calculating fringe benefit tax**
  - Fleet buyers.
  - We recommend that a review be conducted in the next 2 years to recalculate the taxable value of the fringe benefit for electricity/hybrid vehicles. This review would ensure that the lower running costs of these vehicles are adequately recognised in the calculation.
  - Would depend on outcome of review, but cost likely to be relatively low.

- **Providing for higher tax depreciation rates for electric vehicles**
  - Fleet buyers.
  - We recommend that you consider adding relevant business groups (for example, Drive Electric, electric vehicle manufacturers) to discuss with tax policy officials the case for having accelerated depreciation rates for electric vehicles. It is expected that prior to the discussions the industry would prepare an economic case to support its arguments for a higher rate of depreciation.
  - Would depend on outcome of review, but cost likely to be relatively low.

### Measures for progression outside of a package

- **Removing battery import duties**
  - Motoring public.
  - We recommend that the issue be considered in the context of New Zealand’s participation in the Environmental Goods Agreement negotiations at the World Trade Organisation. We call on the Government to engage with MFAT, MBIE and the New Zealand Customs Service to establish the impact of any future changes to this on electric vehicle importation.
  - International negotiations already underway.
  - Depends on outcome of the final Environmental Goods Agreement negotiations.

- **Amending ACC levies for plug-in hybrid electric vehicles (PHEVs)**
  - Fleet buyers and motoring public.
  - We recommend that the issue be deferred until there is a wider review of the NZ Transport Agency’s annual vehicle licensing classification system (which determines ACC levies paid by electric vehicle operators). By itself the cost of a review for PHEVs would for exceed the benefit to be gained by a lower levy. (We estimate that PHEV owners are individually paying an excess of $18 per annum in ACC levies, or collectively approximately $3,000 based on current uptake levels).
  - Would be relatively easy if undertaken as part of a wider review.
  - It would cost government agencies between $0.5 million to $1.4 million to resolve this anomaly.

- **Introduce a new RUC rate for PHEVs**
  - Fleet buyers and motoring public.
  - We recommend that this issue be addressed shortly before any RUC exemption for electric vehicles ends.
  - Would be relatively easy if undertaken at the appropriate point in time.
  - Cost neutral.

- **Feebates**
  - Fleet buyers and motoring public.
  - We recommend that feebates be introduced as a measure for encouraging the uptake of electric vehicles. Instead, feebates should be further investigated as a mechanism for reducing GHG emissions across the vehicle fleet as a whole.
  - Further investigation would require low level of effort.
  - If appropriately designed, would be cost neutral to the Government.

- **Recognition of alternative low emission vehicle designs**
  - Fleet buyers and motoring public.
  - We recommend that changes to the regulatory framework for recognising alternative vehicle designs not be pursued as a measure for encouraging the uptake of zero-emissions vehicles. Instead, these measures should be further investigated as a mechanism for reducing GHG emissions across the vehicle fleet as a whole.
  - Further investigation would require low level of effort.
  - Will be explored as part of further work.

### Measures that were not considered worth progressing

- **Lower registration and annual vehicle licensing fees for electric vehicles**
  - Motoring public.
  - We recommend no change to registration fees as first registration fees are currently differentiated on motor size. We also recommend that annual licensing fees not be differentiated to favour better performing vehicles as adjustments to existing fees would not provide sufficient economic value to act as an incentive (the fee is currently $43.50 excluding GST per year).
  - Would require high level of effort to investigate and implement.
  - Not explored.

- **Second hand electric vehicles GST exemption**
  - Motoring public.
  - We do not recommend further consideration of a GST exemption for electric vehicles. This measure would amount to a subsidy and would be difficult to implement.
  - Would require high level of effort to investigate and implement.
  - Not explored.
## Appendix B – Qualitative analysis of effectiveness of measures in reducing market or regulatory barrier to electric vehicles

<table>
<thead>
<tr>
<th>Measures</th>
<th>EECA information campaign</th>
<th>Support for charging infrastructure</th>
<th>Government procurement (trial and special class)</th>
<th>Electric vehicle programme or fund</th>
<th>RUC exemption</th>
<th>Review method for calculating fringe benefit tax</th>
<th>Access to bus and transit lanes</th>
<th>Review tax depreciation rates</th>
<th>Remove ACC double payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misconceptions about cost, range, climate impact</td>
<td>Addresses misconceptions by targeting fleet managers and public</td>
<td>Trial experience may help address these concerns among fleet managers</td>
<td>Potential to co-fund projects targeting misconceptions</td>
<td></td>
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<tr>
<td>Lack of awareness that electric vehicles are available</td>
<td>Raises electric vehicle visibility by targeting fleet managers and public</td>
<td>Raises awareness of electric vehicle visibility</td>
<td>Potential to co-fund awareness raising projects</td>
<td></td>
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<tr>
<td>Coordination issues • Lack of charging infrastructure • Lack of suitable vehicle choices</td>
<td>Government support incentivises the private sector to invest in charging infrastructure. Branding and completing the network lifts value.</td>
<td>Government demand may encourage suppliers to make available a greater range of vehicle models.</td>
<td>Potential to co-fund infrastructure investment, and grow the charging network</td>
<td></td>
<td></td>
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<tr>
<td>Regulatory barriers to public and private investment in electric vehicles</td>
<td>Provides certainty to fleet owners that infrastructure will be available</td>
<td>Provides fleet owners with information about residual value and other lifetime costs.</td>
<td>Investment highlights government confidence in electric vehicles.</td>
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<td>Market uncertainty</td>
<td>Highlights government confidence in electric vehicles</td>
<td>Highlights the potential for electric vehicle owners.</td>
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| ‘Nudge’/low cost incentive | Campaign would be a useful tool for highlighting the range of incentives on offer | Provides $400-$700 saving in on-road costs to electric vehicle owners | Identified as the most effective (non-subsidy) incentive in several jurisdictions |

| Cost | Could range from $800,000 over 2 years for ‘quick wins’, or up to $8.5 million over 5 years for long-term change focus. | Costs would be covered by an information and promotion campaign and/or electric vehicle programme if these options are pursued. | To be confirmed. $500,000 estimated to cover the incremental cost of 44 vehicles in four government fleet locations. | Depends on level of ambition. $2 million could be funded by government fleet, demos, or small infrastructure projects. | Current RUC exemption costs $230,000 in foregone revenue. At 1% of the light vehicle fleet, the revenue loss is more than $20 million (at current RUC rates). | Minor costs to central and local government (signage, monitoring, enforcement, and rule changes). | Unknown negative fiscal impact | Unknown |

| Key | Material impact | Minor impact |
MEMO TO HON SIMON BRIDGES

Date: Tuesday 31 March 2015

From: withheld under section 9(2)(a) of the Official Information Act 1982

Subject: Electric Vehicles paper

Minister,

Since this briefing was provided, MBIE has contacted the Ministry of Transport with a revised position towards including an electric vehicle class in the all-of-government procurement contract. They have commented that:

"MBIE notes that hybrid vehicles are already included in the vehicles all-of-government contract. Vehicles are promoted to government agencies based on class and total cost of ownership. There is currently a lack of data around the total-cost-of-ownership of electric vehicles, particularly around maintenance and servicing costs, as well as on-sale value. These unknowns mean total cost of ownership for electric vehicles is considered high relative to similar petrol vehicles. MBIE's preference is to first run a trial to better assess the costs and benefits of electric vehicles and inform the promotion and inclusion of electric vehicles into an all-of-government solution. MBIE notes that it is possible, with MBIE's prior agreement, for agencies to buy electric vehicles and negotiate a discount, particularly for a pilot project that would potentially highlight the benefits of using electric vehicles."

The Ministry of Transport has suggested that you also provide a copy of the briefing to Hon Steven Joyce as the Minister of Economic Development (responsible for government fleet procurement).

Noted:

[Signature]

Hon Simon Bridges
Minister of Transport

Date: 27/4/15
Report on possible government measures to encourage the uptake of electric vehicles

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Purpose of report

1. This report outlines the potential role of electric vehicles in helping New Zealand reduce its greenhouse gas (GHG) emissions from transport.

2. It provides you with advice on a range of measures that could form a package to encourage the uptake of electric vehicles in New Zealand.

3. Our advice is divided into four categories of potential measures that:
   3.1. we recommend be investigated further for possible inclusion in a package
   3.2. could be investigated further for possible inclusion in a package
   3.3. should be progressed outside of the package
   3.4. were not considered worth progressing.

Useful terms

4. **Pure electric vehicle** – a vehicle powered solely by electric batteries charged from an external source.

5. **Plug-in hybrid vehicle (PHEV)** – a vehicle that operates on a combination of batteries that are charged externally, along with petrol or diesel motors.

6. **Electric vehicle** – either a pure electric vehicle or a PHEV.

7. **Hybrid vehicle** – a vehicle that has an internal battery but cannot be directly plugged in, and must have petrol or diesel to run.

8. **Light vehicle** – a vehicle with a maximum gross mass of 3.5 tonnes or less.
9. In 2012, the transport sector accounted for 18 percent of New Zealand’s emissions. Of this, 89 percent was from road transport and the remainder from domestic aviation, marine and rail.

10. Light passenger vehicles emit the majority of road transport GHG emissions. While making up only 4 percent of the vehicle fleet, heavy vehicles use almost 21 percent of the total fuel used in New Zealand.
11. Reducing emissions from the sector will likely require a range of policies. These could include changes to the New Zealand Emissions Trading Scheme, encouraging uptake of electric vehicles, greater use of biofuels, research into alternative fuels, investment in public transport/active modes of travel, and intelligent transport systems.

12. On 28 November 2014, we provided you with a briefing on a climate change work programme where a range of feasible options was considered. We will continue to progress the work set out in that programme.

The New Zealand vehicle fleet: challenges to growing the market for electric vehicles

13. There are a number of challenges unique to New Zealand’s vehicle fleet that mean adopting new technology like electric vehicles is likely to be a slow process.

14. New Zealand has high levels of car ownership, with approximately 700 light vehicles for every 1,000 people. In 2013, the light fleet consisted of approximately 3.1 million vehicles.

New vehicles

15. A little less than half of the vehicles that enter the New Zealand fleet each year are new vehicles. According to the motor industry, between 60 and 80 percent of new vehicles are purchased by fleet owners, but the exact figure is difficult to calculate.

<table>
<thead>
<tr>
<th>Table 1: Non-private vehicle purchases in New Zealand between January 2011 and September 2014, split by purchaser type</th>
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<tr>
<td>Business</td>
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<td>79.8%</td>
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16. The most important determinant of uptake for fleet purchases is the cost of electric vehicles relative to conventional vehicles.

17. Sourcing vehicles that are fit for purpose is also important. For example, electric vehicles are unlikely to be suitable for fleets that require utes and vans, or travel long distances (that is, more than 150 kilometres per day).

Used vehicles

18. Just over half of the vehicles that enter New Zealand each year are used imports. Virtually all used imports are sourced from Japan and bought by private owners.

19. The types of vehicles available partly depend on Japanese preferences 8 or so years ago, current Japanese demand for used cars, competing demand from other international buyers and the currency exchange rate. Historically New Zealand importers have preferred to bring in the oldest vehicles that regulations and the market will allow, in order to maximise their profit margins.

20. Electric vehicles are currently selling at relatively modest volumes in Japan (29,000 sales in 2013/14). Vehicles registered in Japan in 2015 could become used imports to New Zealand in 2023. It is important to note this lag effect.

21. Japanese purchasing patterns are therefore important to understand the potential uptake of electric vehicles in New Zealand, including the impact of any new Government policies on electric vehicles.
Turnover of the fleet

22. The speed at which the make-up of the light vehicle fleet can be changed is driven by the fleet turnover. This is difficult to predict accurately, but on average over the last decade 7.1 percent of light vehicles enter the fleet each year. New Zealand has an aging fleet by Organisation for Economic Co-operation and Development (OECD) standards. In New Zealand, the average lifespan of a car is 20 years, and about 5.5 percent of the light fleet is scrapped annually.

Electric vehicles in New Zealand – policies and uptake

23. In New Zealand, measures have already been implemented to promote the uptake of low emission vehicles generally, which have an impact on the uptake of electric vehicles. These include:

23.1. the New Zealand Emissions Trading Scheme, which establishes a price on emissions that flows through to the cost of petrol (the current price signal is weak)

23.2. the fuel economy labelling scheme

23.3. electric vehicles being exempt from road user charges (RUC) until 2020.

24. Recent data indicates that the average emissions performance of light vehicles entering the fleet is improving. In 2013 it was 183 grams of carbon dioxide (CO₂) per kilometre, down from 220 grams per kilometre in 2005.

25. However, these initiatives have had limited impact on uptake of low emission vehicles to date. While the numbers of electric and hybrid vehicles are increasing, they currently make up 0.32 percent of the total vehicle fleet (electric vehicles only make up 0.02 percent of our total fleet).
Current projections for electric vehicle uptake

26. There are serious challenges in providing accurate projections for electric vehicle uptake in New Zealand given the high level of uncertainty around a number of factors that will influence uptake. Uncertainties include:

26.1. the rate that the prices of electric vehicles will fall
26.2. the extent to which battery prices will fall
26.3. trends in the cost of other energy sources
26.4. trends in the price imposed on carbon emissions
26.5. the future of the RUC exemption
26.6. the availability of used electric vehicles into the New Zealand market (half of light vehicle registrations in New Zealand are used vehicles).

27. The Ministry of Transport ran one baseline projection of electric vehicle uptake (below). This forecasts that electric vehicles will account for 1 percent of the vehicle fleet by 2035 and 2 percent by 2040. This baseline scenario is based on electric vehicle uptake trends to date. It assumes no significant changes in policy, the price of electric vehicles, or any relevant external shocks.

28. We have not been able to analyse how the measures identified in this report could affect the Ministry of Transport’s baseline projection. We have instead provided a qualitative analysis of the impact we expect each measure could have on addressing market failures and regulatory barriers to uptake (Appendix B to the cover briefing).

**Other modelling work**

29. We have also undertaken some modelling work for the Ministry for the Environment, in response to a query by the Minister for Climate Change Issues, asking what impact 1 million electric vehicles in fleets have on reducing CO₂ emissions.

30. We assumed a range of scenarios where electric vehicles made up approximately 200,000, 500,000, and 1 million vehicles in the fleet and modelled the corresponding effect on carbon emissions (see the graph below).
31. The scenarios depicted below were not based on any specific assumptions about changes in policy or the cost of electric vehicles. No analysis was undertaken to identify the conditions or policy pathways that would be needed for these scenarios to be realised.

32. Ministers may also be aware of some electric vehicle scenario work undertaken by the Ministry of Business, Innovation and Employment (MBIE) as part of the Smart Grid Forum. MBIE assumed a scenario where electric vehicles saturate the market by 2028. This was done exclusively to test what impact this level of uptake would have on the distribution network. This scenario was not based on a likely scenario for electric vehicle uptake, or a particular policy pathway. The scenario would be extremely unlikely to occur given the constraints on used imports discussed above.

**What are the opportunities and barriers for electric vehicles?**

*The opportunity*

33. As well as reducing emissions, increased uptake of electric vehicles can bring other benefits such as reducing our reliance on imported fossil fuels, and enhancing the efficiency of renewable electricity networks.

34. New Zealand is well positioned to benefit from electric vehicles because:

   34.1. we have high levels of renewable electricity generation (currently 78 percent), with capacity to increase the energy demand on renewables via electric vehicle uptake

   34.2. 95 percent of daily travel demand is for distances less than 120 kilometres, which is within the range of electric vehicle batteries (currently approximately 150 kilometres per charge)

   34.3. we do not need major investment in infrastructure – domestic power supply is suitable for charging at home, and 80 percent of homes have off-street parking.
35. We previously advised that any policies dependent on the turnover of the vehicle fleet may be effective at reducing emissions over a very long-term, but are unlikely to make a significant contribution to New Zealand’s 2020–2030 emissions reduction target. Therefore adopting a package of measures to achieve higher electric vehicle uptake represents an investment for the long-term, and may assist in the achievement of longer-term emissions targets.

**Barriers to uptake**

36. High upfront costs – although some models are becoming cost-competitive, the average upfront costs of electric vehicles are generally higher than conventional vehicles, and consumers are not recognising their additional associated value.

37. Limited range – pure electric vehicles are not suited to long journeys (over 150 kilometres) without stops to recharge the vehicle. There is a strong body of research that private citizens highly value the ability to travel long distances, even if very occasionally.

38. Few electric models are available in New Zealand – only a small range of models are offered in the New Zealand market currently.

39. Supply of used electric vehicles is likely to be constrained in the foreseeable future – uptake of electric vehicles in Japan is expected to be low in the foreseeable future. Further, Japanese policies mean electric vehicles do not depreciate as quickly as conventional vehicles so they are not on-sold into the second-hand market as quickly. These factors may consequently limit the supply of used electric vehicles in New Zealand in the future.

**Government’s role in overcoming these barriers**

40. Government is limited in what it can directly do to address the barriers above. In some cases intervention may not be required as existing barriers may reduce themselves through cost reductions and improved battery technology over time.

41. There is a clearer role for government intervention to address market failures affecting uptake, such as in helping to resolve:

   41.1. coordination problems, for example, addressing any issues to ensure that the necessary infrastructure is in place ahead of demand in order to encourage uptake

   41.2. information problems, for example, lack of awareness and misconceptions about electric vehicles, and uncertainty about the total cost of ownership (including maintenance costs, battery life and residual values)

   41.3. trade barriers, for example, the removal of import duties on a broad range of environmental goods (which could include electric vehicles and batteries) in the context of the negotiations towards a global Environmental Goods Agreement in the World Trade Organization (WTO).

42. As well, we have identified several instances of possible regulatory failure (for example, ACC levies and road user changes for PHEVs). Left unaddressed, these regulatory failures may ‘nudge’ motorists away from choosing electric vehicles.

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1 Our modelling indicates that doubling the uptake rate of electric and hybrid vehicles over the next 25 years (compared to business-as-usual baseline) could result in emissions reductions of 7 percent in the transport sector by 2040.
Criteria used to assess potential measures

43. A set of standard criteria was used to assess the merits of potential measures in accelerating the uptake of electric vehicles as a means to reduce transport GHG emissions.

43.1. Effective – the measure will achieve a reduction in transport GHG emissions. This includes securing a reduction that is sustained long-term.

43.2. Efficient – the measure will take account of:

   43.2.1. purchase, implementation, and maintenance costs for individuals, businesses and government

   43.2.2. compliance costs and government administration costs.

43.3. Equitable – the measure addresses distributional impacts between high income households and low income households, and maintains the principle that system use and costs imposed determine who pays and at what level.

43.4. The measure maximises co-benefits (for example, increasing air quality) and minimises co-costs (for example, increasing the pressure on freshwater ecosystems).

43.5. The measure encourages private sector activity and investment with government intervention only occurring where there is an identified market or regulatory failure.

43.6. The measure helps New Zealand transition to a long-term low-emissions transport sector.
Measures that we recommend be investigated further for inclusion in a package

44. Listed below are the measures that we recommend are prioritised for further investigation. Our initial analysis suggests these measures are the most viable for inclusion in a package to encourage the uptake of electric vehicles.

Measure 1: Energy Efficiency and Conservation Authority (EECA) information and promotion campaign

We recommend any package includes an information and promotion campaign as a central component. A campaign would help address information barriers and enhance the visibility of other measures to address barriers to uptake of electric vehicles. Given that vehicle fleet turnover is a long-term option for reducing GHG emissions, we recommend pursuing a campaign that seeks long-term change (this would require funding of approximately $1.7 million per year, for 5 years).

45. Many motorists are either unaware of, or hold misconceptions about electric vehicles and their operation. Electric vehicles are a relatively new technology that is not well understood or accepted by potential buyers.

46. The Sustainable Business Council has also cited a “lack of awareness of electric vehicles by corporate fleet managers and staff that have vehicles as part of their salary package” as a barrier to uptake. We are undertaking research with EECA to better understand the information barriers that exist among fleet buyers.2

47. We consider an ideal information and promotion campaign is one that supports the long-term change in perceptions and understanding of electric vehicles, which is necessary to maximise GHG reductions from uptake.

48. Such a campaign would need to target the market segments most likely to respond to information and promotion in the first instance (for example, fleet owners, lease companies, large businesses, and government agencies). Public information would focus on dispelling misconceptions.3 Building long-term relationships with business and local government would provide opportunities to develop joint measures and share learnings between stakeholders. This level of commitment would send a strong signal to business and local government about the Government’s long-term support for electric vehicles.

49. EECA has the mandate and capability to deliver this kind of information and promotion campaign. EECA has identified the elements of a comprehensive campaign that seeks long-term consumer change and addresses barriers to uptake. The campaign would run for 5 years and cost $1.7 million per year. This could require a new budget initiative. The funding would enable EECA to:

49.1. run a high profile media and advertising campaign

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2 EECA has engaged with a number of major light vehicle fleet owners (including Downer, Opus and Fonterra) to better understand barriers to the uptake of electric vehicles from a fleet buyer’s perspective. A key barrier is a lack of information on the total cost of ownership. In response to this, EECA is working on a “total cost of ownership” tool to help fleet managers compare the total costs of owning and operating an electric vehicle with an equivalent petrol or diesel vehicle, so that fuel and maintenance savings can be readily taken into account.

3 For example, EECA’s engagement with fleet managers (and the public) has identified misconceptions about the environmental performance of electric vehicles as a barrier to uptake. To this end, EECA is engaging a consultant to undertake a lifecycle analysis of electric vehicles in the New Zealand context, to provide authoritative information that can be easily communicated.
49.2. directly market to, and build long-term partnerships with, corporate fleet managers

49.3. undertake joint measures with private sector companies and local government.

50. This campaign is scalable and could be delivered with a more limited reach over a shorter
time frame (for example, 2 years) for a cost of $1.2 million per year.

51. Any campaign would also be used to inform consumers of other measures within the
package that address barriers to uptake (for example, the RUC exemption for light electric
vehicles).

52. We recommend any package to support the uptake of electric vehicles should involve an
information and promotion campaign. We consider a longer-term and more comprehensive
campaign is best suited to the dynamics of the New Zealand vehicle market, particularly as
the majority of new vehicles are purchased for fleets before entering the second-hand
market 3 to 5 years later.

53. We consider the smaller, lower cost campaigns would still have merit, but would also have
fewer benefits over the long-term. The signal sent to industry would also be weaker.
Measure 2: Government support for charging infrastructure

We recommend that the Government supports the private sector to establish a cohesive network of fast-charging stations by:

- offering branding and promotional support to facilitate a cohesive network
- providing independent advice to local government and other independent investors about appropriate recharging infrastructure
- potentially funding, or co-funding the installation of fast-charging stations in locations where it is not commercially viable for the market to do so.

A new budget bid would be required to request Crown funding for this option. Alternatively, should you progress measures 1 and 4, funding for charging infrastructure (promotion and installation) could be drawn from the proposed EECA promotional campaign and electric vehicle programme.

54. As in other countries, the majority of electric vehicles are likely to be charged during overnight parking, predominantly in homes. In addition, 95 percent of all journeys in New Zealand are less than 120 kilometres, well within the range of electric vehicles. We anticipate that range will improve with battery technology over the coming years.

55. Nevertheless, charging infrastructure will still be required to offset range anxiety and enhance the versatility of electric vehicles.

56. Evidence from jurisdictions such as Oregon (USA) suggests that public charging infrastructure increases the utility, and therefore value, of electric vehicles. Without a charging infrastructure network, electric vehicles are only useful within a radius of 50 percent of their range. A network of fast-charging facilities means that electric vehicles can travel further if required. This makes them appealing to a larger segment of the car-buying population.

57. The Electricity Networks Association has announced plans to study if a ‘renewable highway’ providing a nationwide infrastructure for charging is possible.

58. On 12 February 2015, officials met with Mighty River Power (MRP) and the Sustainable Business Council. [Commercial in-confidence] MRP advised us that it plans to partner with other electricity industry players to invest in a ‘renewable highway’. The ‘renewable highway’ is a network of fast-charging stations that will form a network from which other charging infrastructure could expand. We understand that MRP considers that this measure can be entirely funded by industry. MRP intends to establish these charging stations at locations where motorists would logically stop on a long journey (for example, shopping areas, tourist attractions).

59. Other parties (such as JuicePoint and the private equity group behind Charge.net.nz) are also looking to provide more charging infrastructure. This does not require Crown funds.

60. There may be a role for government in ensuring the network is cohesive. For example, there may be locations where charging infrastructure is not commercially viable to install, but necessary to complete a cohesive network. Easy identification of charging stations and the standardisation of various systems may also be an issue if multiple businesses are installing fast-charging stations.
61. We understand that a number of local councils and other players that are looking to install charging infrastructure are seeking independent advice about what charging facilities they should install. There would be value in government filling this gap.

62. We considered the following options for government support for charging infrastructure.

Option 2.1 – government branding and information support for charging infrastructure.
Option 2.2 – inclusion of charging infrastructure in large State highway projects.
Option 2.3 – government providing funding for charging infrastructure to fill gaps in the network.

Assessment of the options

63. Option 2.1 is preferred. Under this option, the market decides the most appropriate locations for fast-charging infrastructure. The cost of providing branding and information support could be covered by EECA as part of the information and promotion campaign (see page 10 of this report). If set up as a stand-alone programme, a budget bid may be required to request Crown funds.

64. EECA could potentially play an advisory and coordination role in supporting these independent players. The NZ Transport Agency advises that it could assist by providing access to Crown land and transport planning advice.

65. Option 2.2 is not preferred because motorists are unlikely to consider it desirable or safe to charge their vehicles on the roadside (for example, motorists would prefer to do something productive during charging times). The cost of creating a safe area for motorists to charge their vehicles along State highways would be much higher than installing charging infrastructure at existing parking facilities.

66. Option 2.3 would be more effective once we have an indication of where the gaps in the network are that cannot be filled by the market. The Government could fund (or co-fund) charging infrastructure under the proposed electric vehicle programme (see page 17).
Measure 3: Government fleet procurement of electric vehicles

We recommend investigating a trial of electric vehicles in the government fleet, and that additional measures be considered once the trial is complete. We also recommend MBIE investigates including a specific vehicle class for electric and hybrid vehicles in the all-of-government vehicle catalogue. This would lift the profile of electric vehicles among fleet managers and support MBIE to negotiate a lower price for electric vehicles as part of a larger contract.

67. There is an opportunity for government to lead by example by increasing the uptake of electric vehicles in the government fleet.

68. Increasing the uptake of electric vehicles in the government fleet could support wider uptake in corporate/commercial fleets and the private vehicle fleet by:

68.1. increasing the demand for, and supply of, electric vehicles in New Zealand (including the supply into the used car market)

68.2. absorbing the risk of being an early adopter and providing lessons learnt to corporate/commercial fleet managers and the public for example, resolving information gaps about whole-of-life costs and residual value, and practical issues around charging and managing the vehicles’ range

68.3. normalising the use of electric vehicles and dispelling myths about their utility and environmental credibility

68.4. adding credibility to the EECA information campaign by demonstrating to the market that government has confidence in electric vehicles.

69. Over 20,000 vehicles currently make up the 273 government fleets in New Zealand. Around 3,500 new vehicles are purchased through the all-of-government (AoG) contract each year. The largest class of vehicles purchased are compact (42 percent) petrol powered passenger vehicles (99 percent).

70. Public and State services agencies are required to purchase through the AoG contract (including the purchase of Crown limousines). Other government entities, including State-owned enterprises, schools and local government, are also encouraged to purchase their vehicles through the contract.

71. The AoG contract is managed by MBIE and involves agreements with a panel of vehicle distributors (currently eight different distributors). MBIE uses this contract to develop a catalogue of vehicles for agencies to select from. Hybrid vehicles are currently included in the catalogue, but there are no electric vehicles.

72. There are three main barriers to including electric vehicles in the AoG catalogue.

72.1. There is a lack of data around the total-cost-of-ownership of electric vehicles, particularly around maintenance and servicing costs, as well as on-sale value. These unknowns mean total cost of ownership for electric vehicles is considered high relative to similar petrol vehicles.

72.2. The apparent high total cost of ownership means electric vehicles are excluded from the catalogue, further discouraging their procurement.

Withheld under section 9(2)(b)(ii) of the Official Information Act 1982
72.3. Electric vehicles remain unattractive to many fleet managers for practical reasons, such as the need to ensure pool cars are charged for the next user, ensuring that electric vehicles have sufficient range for employees’ day-to-day activities, and that employees have access to charging facilities.

73. The current AoG contract is due to expire on 30 June 2015 and the new contract has the potential to be in place for the next 10 years. The criteria for vehicle inclusion in the catalogue are expected to stay much the same, and as a result electric vehicles are highly unlikely to be included in the catalogue under the status quo.\(^4\)

Options considered

74. Potential options to facilitate the uptake of electric and other low emission vehicles into the government fleet include the following.

Option 3.1 – the Government funding a trial of electric vehicles within government agency fleets. An indicative cost for such a trial would be around $500,000 (and potentially cost neutral over time). This level of funding would cover the additional purchase costs for around 24 electric vehicles or PHEVs in four government fleet locations around New Zealand. It would also cover the risk to fleet managers of any lower residual value at on-sale, the cost of installing charging facilities, and costs associated with project management, research and monitoring.

Option 3.2 - requiring MBIE to include a specific class in the AoG catalogue for electric and hybrid vehicles.

Option 3.3 – providing greater information in government fleet managers’ guidelines regarding electric vehicles.

Option 3.4 – amending government procurement guidelines to require a set percentage of all vehicles purchased by government fleets to be electric.

Option 3.5 – the Government guaranteeing agencies a residual value on the resale of all electric vehicles purchased through the AoG vehicle catalogue. Government would guarantee an on-sale price that would make electric vehicles competitive with other vehicles vying for inclusion in the catalogue.

Option 3.6 – choosing electric vehicles for some or all Crown limousine replacements and ministerial self-drive cars.

Assessment of the options

75. Option 3.1 is the preferred option. A trial could fill information gaps around the whole-of-life cost associated with electric vehicles, and demonstrate their functionality in New Zealand fleets. This information would help to inform government and corporate fleet purchasers about key uncertainties, such as likely resale value, and maintenance and replacement costs, and therefore reduce risk. The visibility of a trial by government could complement a government information campaign by normalising electric vehicles and dispelling myths associated with electric vehicles.

76. MBIE and EECA have expressed their willingness to support the development of a trial scheme, in terms of developing parameters, providing comparative cost data, and identifying willing government agencies to participate.

\(^4\) Inclusion in the catalogue is determined by an expert procurement panel.
77. Further discussions would be needed to determine who would administer and manage this trial. MBIE would also work with the AoG contracted suppliers on the supply of electric vehicles. While some contracted suppliers are manufacturing electric vehicles globally, these are not being imported into New Zealand due to the current low demand for these types of vehicles.

78. There is some risk associated with this option. The unknown costs around electric vehicles (that is, on-sale value, maintenance and replacement costs), which this trial is trying to identify, also risk increasing (or decreasing) the costs of this trial.

79. Option 3.2 (including a specific class for electric and hybrid vehicles in the catalogue) is also recommended. This would make electric and hybrid vehicles more visible to government fleet managers and nudge them to consider them as a viable option. It would ensure that manufacturers that sell electric vehicles are included in the AoG contract so that lower prices for electric vehicles can be negotiated. This measure would place some cost on MBIE, which may have to run an additional tender process for this specific class.

80. Option 3.3 would provide a low cost way of encouraging uptake of electric vehicles in the government fleet. However, without information relating to the whole-of-life costs (that option 3.1 will seek to generate), this would have limited effect.

81. Option 3.4 is potentially viable but it is a higher risk option. We do not know how government agencies use their vehicles so a prescribed level of uptake risks burdening agencies with vehicles that do not fit their needs (that is, typical driving distance or pooling arrangements). This approach could also present a financial risk to agencies and government given the unknowns around the supply of affordable electric vehicles, the on-sale value of these cars, and maintenance costs (all unknowns that a trial would seek to inform). This option would require adjustments to the AoG solution, but MBIE advises that the new contract scheduled from 1 July 2015 will be flexible enough to allow for any such change.

82. Option 3.5 could be effective for incentivising wider uptake of electric vehicles in the government fleet. It could also offer a simplified approach to financing option 3.4. It removes the risk for government fleet purchasers of on-sale value being unknown, and provides useful information about whole-of-life cost for private fleet purchasers. However, this option presents a financial risk to government and similar information about electric vehicle on-sale value could be gained from a lower risk trial (option 3.1).

83. Option 3.6 would not be viable at this time as MBIE has already begun the tender process for Crown limousine replacements. We understand that the tender document includes the following wording to encourage the inclusion of electric vehicles in the tender process: “If it meets all the requirements electric vehicles would be welcomed.”
Measures that could be investigated further

84. The measures below could be initiated in the short-term (next 2 years). You may wish to consider which, if any, of these options should be progressed as part of a package to encourage the uptake of electric vehicles.

Measure 4: An electric vehicle programme to co-fund initiatives with other parties

We could investigate the establishment of an electric vehicle programme that would co-fund projects that encourage the uptake of electric vehicles. This option would encourage businesses and local communities to develop projects to address the market failures/barriers that are limiting the uptake of electric vehicles. This would require a new budget bid.

85. In addition to government, there are other parties that have an interest in encouraging uptake of electric vehicles, including the electricity sector, manufacturers of electric vehicles, businesses seeking to reduce their fuel costs and GHG emissions, and local government.

86. An electric vehicle programme could be used to bring together the efforts of these parties over a focused period of time. The programme could be used to ensure that the sum of efforts to encourage uptake of electric vehicles is maximised by having a greater degree of visibility and coherence. This programme would be distinct from the EECA promotional campaign.

87. Under this option, local government and private sector organisations would be incentivised to develop and implement their own projects aimed at increasing the uptake and use of electric vehicles. They would apply to have their project co-funded and an investment group would assess the projects against a set of agreed criteria. The investment group would be responsible for ensuring that the projects represent value for money and contribute to the objective of lowering GHG emissions through the uptake of electric vehicles.

88. The advantage of this approach is that it encourages innovation by giving local government and private sector organisations the flexibility to determine the types of projects that are most appropriate for particular market conditions and/or their local communities.

89. The co-funding approach encourages partnership by giving both parties the incentive to ensure that projects are value for money, and achieve the desired outcomes of encouraging uptake of electric vehicles and reducing GHG emissions.

90. Examples of the type of projects that could be funded by an electric vehicle programme include:

90.1. trials of electric buses on urban public transport routes

90.2. installation of public fast-charging infrastructure at locations where it is not commercially viable for the market to do so, but is necessary to form a cohesive network

90.3. creation and promotion of branded tourism routes (for example, where tourists can hire electric vehicles, and preferentially park and charge the electric vehicle at tourist attractions, cafes and accommodation along the route)

90.4. demonstrations of vehicle types not currently offered in New Zealand (for example, electric vans for use by trade employees in business fleets).
91. Auckland Transport’s recent announcement of a Request for Proposal from car share operators to launch an electric vehicle scheme in Auckland is also an example of the type of project that could be co-funded through an electric vehicle programme.

Details that would need to be considered

92. Details of an electric vehicle programme that would need to be determined include the following:

92.1. The level of funding made available, and over what period – the level of funding could vary significantly depending on the level of ambition assigned to the programme. As an example, a programme in the order of $2 million over 2 years could be used to co-fund 8 to 10 trials, demonstrations or small infrastructure projects (for example, charging stations).

92.2. Co-funding rates for projects – we consider that a maximum co-funding rate of 50 percent would give both parties the appropriate incentive to ensure that the projects were effective and value for money.

92.3. Which government department or agency is primarily responsible for administering the fund.

92.4. Composition of the investment group – the group would ideally be comprised of representatives of central and local government, industry and users.

92.5. Eligibility and criteria for funding – these would be decided by ministers.

92.6. Appropriate level of oversight for allocation decisions – this would depend on the level of funding for the programme and the potential cost of individual projects.

93. Our recommendation is to consider this option. The Ministry of Transport, NZ Transport Agency, and EECA have experience in dealing with similar programmes, and can assist in the development and administration of an electric vehicle programme.
Measure 5: Electric vehicles in bus and transit lanes

Consideration could be given to investigating the removal of regulatory barriers preventing road controlling authorities from allowing electric vehicles in bus and transit lanes.

94. Allowing electric vehicles access to bus and transit lanes is a relatively low cost incentive to encourage uptake of electric vehicles and bring forward GHG emission reductions. This particular measure is perceived by drivers to be of high value relative to other common electric vehicle incentives. In Norway this incentive was a key part of changing consumer opinion about electric vehicles.5

95. In New Zealand, priority vehicle lanes exist in two main forms: as transit lanes (for example, T2 and T3 lanes), which prioritise private vehicles carrying multiple passengers; and as bus lanes, which primarily prioritise public buses.

96. Priority lanes run along congested arterial roads in urban areas and are intended to reward forms of travel that make a stronger contribution to network efficiency. Priority lanes offer time savings, which provide strong incentives for travel behaviour change.

97. Under the Land Transport (Road User) Rule 2004 (the Road User Rule), road controlling authorities (RCAs) are restricted from granting electric vehicles access to priority lanes. This incentive is therefore not currently possible without changes to the Road User Rule and related provisions in Land Transport Rule: Traffic Control Devices 2004.

Background

98. At present, transit lanes only exist in Auckland. They operate in two forms.

98.1. As ‘priority lanes’ at on-ramps onto the motorways, where vehicles with two or more people can bypass the on-ramp signal lights during congested periods and enter the motorway ahead of other traffic.

98.2. As ‘T2 or T3 lanes’. These operate on arterial roads during peak hours and are reserved for cars with two to three or more people.

99. Bus lanes exist along main arterial roads in most of New Zealand's main urban centres.

100. The NZ Transport Agency is a RCA and manages priority lanes on the Auckland motorway. RCAs, like Auckland Transport and Greater Wellington Regional Council, have responsibility for determining bus lane location and identifying vehicles that can and cannot use the lanes.

101. Providing electric vehicles access to priority lanes would likely provide an incentive for ownership. However, there is limited data available to identify what time savings are necessary to influence electric vehicle uptake. In the USA, there is evidence that policies allowing access to transit lanes have positively influenced the uptake of electric and hybrid vehicles.6 NZ Transport Agency research shows a fairly strong relationship between travel


time savings offered by bus and car pool lanes and a shift from car to buses or high occupancy vehicles.\textsuperscript{7}

102. Allowing electric vehicles to access priority lanes will inevitably have some impact on other transport objectives. Priority lanes are typically implemented for network efficiency purposes, and the inclusion of electric vehicles in such lanes is likely to impact on public transport reliability and general congestion as electric vehicle numbers grow. However, without RCAs modelling specific corridors, it is not possible to know the precise effects of this incentive, either for electric vehicle uptake or on other transport objectives.

103. In Auckland, the Onewa Road T3 lane offers a travel time saving of around 20 minutes (this resulted in a 120 percent increase in the share of high occupancy vehicles). The priority lanes on on-ramps offer time savings between 2 and 5 minutes and have resulted in only a small increase in high occupancy vehicles.\textsuperscript{8}

104. Many bus lanes in New Zealand may not offer a real time saving to car drivers, given the stop-start nature of buses operating in them. The NZ Transport Agency has also advised that the four main corridors with bus lanes in Auckland are expected to be congested within 1 to 3 years. This suggests there are limited opportunities to provide electric vehicle drivers with real time savings via bus lanes. Nevertheless access to bus lanes is likely to remain an incentive for electric vehicle uptake as it provides the perception of priority access.

Options

105. The options considered were:

option 5.1 – amending existing legislation to allow electric vehicles automatic right of access to all bus and transit lanes

option 5.2 – amending existing legislation to enable RCAs to determine which bus and transit lanes electric vehicles can access.

Assessment of the options

106. If this measure is pursued, option 5.2 is preferred. Under this option the Ministry of Transport would consider options for amending legislation to give RCAs the power to allow electric vehicle access to specific bus and transit lanes. RCAs would retain the power to exclude electric vehicles from bus and transit lanes should they choose to do so.

107. This option provides RCAs with the flexibility to choose which bus and transit lanes electric vehicles can access. This flexibility would allow RCAs to manage conflicting transport priorities along a corridor, including electric vehicle promotion and network efficiency.

108. There is a risk that this option would not result in electric vehicles having access to bus and transit lanes. It is the NZ Transport Agency’s expectation that RCAs are unlikely to be interested in granting electric vehicles access to bus and transit lanes. The NZ Transport Agency expects RCAs will share its reservations about the potentially negative impact of having electric vehicles in bus and transit lanes on network efficiency (that is, vehicle congestion and bus reliability). For this reason, it would be important to discuss this measure with RCAs prior to any announcement or decision.

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\textsuperscript{7} http://www.nzta.govt.nz/resources/research/reports/557/docs/557.pdf , p.23.

\textsuperscript{8} Ibid, p.22, 23.
109. This risk could be mitigated through consultation with RCAs. Matters relating to implementation of the option will need to be tested with RCAs to consider how they could be managed.

110. This incentive would result in minor costs for RCAs. There would be costs involved in altering signage to identify electric vehicle accessible lanes, and also to make it clear the lanes that do not afford electric vehicles access.

111. The NZ Transport Agency advises that changes to systems to enable identification of electric vehicles for enforcement purposes could range between $60,000 and $200,000 to enable. However, this work may be able to ‘piggyback’ on other projects.

112. Option 5.1 would be the simplest way to ensure this policy is implemented. However, it would reduce the flexibility RCAs have to manage their networks. Should electric vehicle numbers grow, and impede the flow of other traffic in a priority lane, RCAs would have no recourse to mitigate this. A mandatory policy would also mean electric vehicle access could not be revoked until the regulation expired or was amended.
Measure 6: Road user charges (RUC) exemptions and discounts for electric vehicles

Consideration could be given to introducing a RUC exemption for light electric vehicles from the date each vehicle is registered in New Zealand, for a finite period of time (for example, 5 years). This option would require a change to the Road User Charges Act 2012.

113. The New Zealand land transport system is largely funded on a user pays basis. Anyone using New Zealand’s roads contributes towards the operation and development of the land transport system. Vehicle operators pay for their road use through either fuel excise duty (FED) or road user charges (RUC), and through a portion of the annual vehicle licensing fee.

114. The Road User Charges Act 2012 (the RUC Act) requires that all vehicles that do not pay FED through tax on fuel purchases9 (that is, including electric and diesel vehicles) be subject to RUC, unless exempted.

115. The scope for exemptions is defined in section 37 of the RUC Act. It allows the Governor-General to, by Order in Council, specify the period during which road user charges are not payable in respect of light electric vehicles. An Order in Council made under section 37 of the RUC Act must specify the date on which the exemption expires, and may, from time to time, be amended to provide for a later date.

116. The Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2012 makes light electric vehicles exempt from RUC until 30 June 2020. The definition of electric light vehicle in the RUC Act includes all vehicles with “motive power wholly or partly derived from an external source of electricity”. In practice, the exemption includes pure electric vehicles and PHEVs.

Previous Cabinet decisions

117. In May 2009, the Cabinet Economic Growth and Infrastructure Committee:

117.1. agreed that the Road User Charges Act 1977 and Road User Charges Regulations 1978 be amended to exempt light electric vehicles from paying road user charges

117.2. agreed that a road user charges exemption (that is intended to apply until 1 percent of the light vehicle fleet is electric) will apply until 2013, with the ability to reassess the percentage of light electric vehicles in the fleet and extend the exemption [EGI Min (09) 10/7 refers].

118. In April 2012, Cabinet agreed to extend the existing exemption from RUC for light electric vehicles until 30 June 2020 [EGI Min (12) 6/6]. This decision reflected a slower than anticipated rate of uptake of light electric vehicles.

Benefits of the RUC exemption for light electric vehicles

119. The RUC exemption does not address information or coordination problems. It is a financial incentive that is designed to encourage electric vehicle uptake by reducing their operating costs.

120. We have not formally evaluated the RUC exemption, so we do not know exactly how effective the RUC exemption is at incentivising the uptake of electric vehicles in practice. This includes knowing the extent to which consumers are aware of the RUC exemptions,

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9 Note that FED is also charged on CNG and LPG.
and its potential value. For instance, motorists who have previously driven light petrol vehicles are unlikely to consider the saving on RUC as distinct from overall fuel costs.

121. Stakeholders, such as the Sustainable Business Council and Fleet Management Association, have said that their members consider the RUC exemption to be an important consideration when making fleet purchase decisions.

122. We undertook analysis of whether electric vehicles would be reliant on the RUC exemption for an economic advantage over conventional vehicles based on current costs. We found that, based on current vehicle and fuel prices, the RUC exemption is an important factor in determining whether the total cost of ownership for electric vehicles is competitive with comparable petrol and hybrid vehicles. The RUC exemption therefore plays an important role in determining whether it makes economic sense for fleet buyers to purchase electric vehicles in the short to medium-term.

123. The analysis compared the per kilometre operating cost of different vehicle types, based on:

123.1. fuel cost (2015 prices)
123.2. ACC costs
123.3. annual vehicle licensing
123.4. RUC (where applicable)

124. The analysis did not cover capital (that is, purchase price), maintenance costs or depreciation.

125. The following breakdown shows the costs for both petrol and diesel vehicles using 4 litres per 100 kilometre and electric vehicles using 12 kilowatt-hours per 100 kilometres. It shows that efficient petrol vehicles have similar operating costs to electric vehicles paying RUC.

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10 Conventional Toyota Prius hybrids use 4 to 4.5 litres per 100 kilometres of petrol in the real world, and Nissan Leaf electric vehicles achieve around 13 kilowatt-hours per 100 kilometres.
126. The analysis shows that if there was no RUC exemption, a solely financial analysis would exclude electric vehicles from any rational business decisions (unless there was a significant rise in the price of petrol or major drop in electric vehicle purchase prices).

Cost of RUC exemption

127. Currently, electric vehicles make up just 0.02 percent of the fleet. Based on our modelling of projected uptake, we would expect to see 30,000 electric vehicles (or about 1 percent of the fleet) in the New Zealand fleet by 2033 under a ‘status quo’ scenario. The financial sustainability of the RUC exemption would need to be addressed at this point.

128. The cost of exempting 1 percent of light electric vehicles from RUC is approximately $22 million per year (2015) from the approximately $3 billion which goes into the national land transport fund annually. Forgoing this revenue means that:

128.1. less funding is available for delivering roading improvements, which could require that delivery is spread over a slightly longer time frame

128.2. more of the revenue burden is carried by a decreasing proportion of road users, which could require proportionate increases in FED and RUC to achieve the same level of funding.

Options considered

129. The following option is consistent with existing government policy, and can be implemented under the RUC Act.

Option 6.1 – extend the blanket RUC exemption for light electric vehicles to a date beyond 30 June 2020.

130. The following amendments to RUC for electric vehicles would require amendment of the RUC Act.

Option 6.2 – introduce RUC exemption for light electric vehicles from the date individual vehicles are first registered in New Zealand, for a finite period of time.

Option 6.3 – introduce a lifetime exemption from RUC for all the light electric vehicles first registered in New Zealand before a specified date.

Option 6.4 – extend the RUC exemption to include heavy electric vehicles.

Option 6.5 – provide a discounted rate of RUC for heavy electric vehicles.

Option 6.6 – provide a discounted rate of RUC for heavy passenger electric vehicles.

131. Note that no amendment to the RUC Act is proposed for this year’s legislative programme.

Assessment of the options

132. If this measure is pursued, option 6.2 is preferred. A RUC exemption for light electric vehicles from the date they are first registered, for a finite period of time, would help manage the cost of foregone revenue (within the 1 percent limit already agreed by Cabinet). It is also more equitable than the current exemption because owners of electric vehicles would begin paying their fair share towards the land transport system after the finite period ended. We would need to do more work to determine an appropriate exemption period. A risk of this option is that it could be politically difficult for a future government to close off the exemption.
133. If you do not want to pursue an amendment to the RUC Act, you could consider option 6.1. Based on our preliminary assessment, the RUC exemption for light electric vehicles could be extended to 2025 without exceeding the 1 percent limit already agreed by Cabinet, even with a boost in uptake levels as a result of a government package.\textsuperscript{11}

134. We do not recommend that option 6.3 be pursued. While this option would incentivise early uptake, it could create some unwanted market distortions (for example, a ‘bubble’ of electric vehicles registered prior to the exemption close off). Such distortions would substantially increase the amount of revenue foregone and would further exacerbate the inequity of the RUC exemption.

135. We do not recommend exempting or discounting heavy electric vehicles from RUC. Heavy vehicles do significantly more damage to the roads, and therefore have a greater impact on maintenance costs. It would also be a further deviation from the user pays model, and is likely to face political resistance.

136. Currently, there are very few electric heavy vehicles on the road. Nationally, there is 1 fully electric truck, 3 hybrid trucks, and 80 electric trolley buses in Wellington.

137. If pursued further, we would need to consult with industry to consider their views on the matter, and get a better indication of likely rates of uptake. This would inform the projected costs of the exemption. We would also suggest limiting the scope of the changes to reduce the risk of higher-than-expected revenue losses (for example, option 6.6 – a discount for heavy passenger electric vehicles).

138. A risk with all the options above is that the overall cost cannot be defined accurately (essentially it will be demand driven). Also, there could be perceptions of unfairness from manufacturers or users of other low emission technologies, such as hydrogen vehicles.

139. If a change to the RUC Act is required following ministerial decisions on the RUC exemption, the Ministry of Transport could explore whether the exemption should also apply to other low emission vehicles.

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\textsuperscript{11} If we assume that a package of measures to encourage the uptake of electric vehicles doubles the baseline rate of uptake, we could see 30,000 electric vehicles in the New Zealand fleet by 2029. However, it is very difficult to project future uptake of electric vehicles off the current low base (approximately 400 vehicles). Actual uptake in 10 years’ time may vary significantly from current projections.
Measure 7: Fringe benefit tax on electric and hybrid vehicles

We recommend that a review be conducted within the next 2 years of the basis for calculating the taxable value of the fringe benefit for electric and hybrid vehicles. This review would ensure that the lower running costs of these vehicles are adequately recognised.

140. Fringe benefit tax is a tax on non-cash benefits provided in connection with employment. The tax is intended to leave an employee neutral between receiving a fringe benefit and receiving the equivalent monetary remuneration. Consequently, fringe benefit tax should not distort choice, unless it results in overtaxing the benefit, such as through an overvaluation of the benefit provided.

141. Electric and hybrid vehicles attract a higher amount of fringe benefit tax as their purchase prices are higher than those of equivalent conventional vehicles. The Sustainable Business Council and Business are of the view that reducing the fringe benefit tax on electric vehicles would have a significant nudge effect on the purchase decisions of fleet managers.

142. For the purposes of fringe benefit tax, the annual taxable value of an employee’s vehicle benefit is calculated as either 20 percent of a vehicle’s cost price, or 36 percent of its book value. These proportions are proxy estimates of the fixed and running costs that the employee would bear if they owned the car themselves. Fringe benefit tax applies to these estimates.

143. Little is known about the extent to which fleet purchase decisions are being influenced by fringe benefit tax. In our view, however, it is more likely that other barriers, such as the limited (travel) range of pure electric vehicles, are playing a far greater role in company decisions not to purchase electric vehicles for their fleets. Also, many employees use motor vehicles solely for work purposes rather than as a non-cash employment benefit, and would be unaffected by changes to fringe benefit tax rules.

144. Nevertheless, a potential issue with the fringe benefit tax regime could be the method for calculating the taxable value of the fringe benefit. The regime assumes that the calculation used to value the fringe benefit of a conventional vehicle correctly values the benefit of an electric/hybrid vehicle. However, although the purchase price is higher, the running costs of electric/hybrid vehicles tend to be lower than for conventional vehicles. By using the same proportion of cost price (or book value), the calculation ignores these key differences.

145. Despite the expectation that the purchase price of electric vehicles will continue to fall over time, it is unlikely that it will fall below that of conventional vehicles. This means that in the future the potential for the tax calculation to overvalue the fringe benefit of electric/hybrid vehicles will remain.

146. Where the tax regime overtaxes the fringe benefit of electric vehicles, this would have the potential to distort vehicle choice in favour of conventional vehicles and away from electric/hybrid vehicles. This brings a risk that the tax calculation will continue to potentially overvalue and overtax the fringe benefit of electric/hybrid vehicles.

147. The options looked at to address this concern were:

- option 7.1 – exempt electric vehicles from fringe benefit tax
- option 7.2 – allow the fringe benefit tax on an electric vehicle to be calculated on the basis of the cost price/book value of an equivalent conventional vehicle
option 7.3 – review the basis for calculating the taxable value of the vehicle benefit for electric/hybrid vehicles within the next 2 years.

Assessment of the options

148. If this measure is pursued, option 7.3 is preferred. This would remove any perception that the fringe benefit tax regime is influencing companies to favour conventional vehicles over electric/hybrid vehicles. It would also preserve and strengthen the existing policy settings of the fringe benefit tax regime.

149. Tax officials note that this review work would have to be prioritised against other items on the Government’s tax policy work programme. The timing of any review should also take into account the likelihood of continued large variations in the cost structure of electric vehicles, to ensure any amendment would appropriately reflect the benefit provided, over a longer term.

150. Option 7.1 is not preferred as it would be inconsistent with New Zealand’s broad based tax settings. It would also compromise equity goals by affording a tax advantage to those companies and employees where an electric/hybrid company car is made available for private use.

151. Option 7.2 is not preferred because it would also, although to a lesser extent, be inconsistent with the current broad based tax settings and would compromise equity goals within the current framework. Such a change would create a discrepancy between the effective taxation of a fringe benefit vehicle and the equivalent cash remuneration.
Measure 8: Tax depreciation rates for electric vehicles

We recommend that you consider inviting relevant industry groups (for example, Drive Electric, electric vehicle manufacturers) to discuss with tax policy officials the case for having higher depreciation rates for electric vehicles. It would be expected that the industry would prepare an economic case and support its arguments for a higher rate of depreciation for income tax purposes.

152. MRP and Zero Emission Vehicles Limited have suggested that government could consider accelerated depreciation rates for electric vehicles. Currently electric vehicles are depreciated at the same rate as passenger vehicles (30 percent (diminishing value) or 21 percent (straight line) over 5 years). Residual value for passenger vehicles is estimated at 25 percent of cost price.

153. We understand companies that calculate residual vehicle values are making low estimates for electric vehicles (from $5,000 to $15,000) even though their original purchase price is higher than similar conventional vehicles. This is likely to be because electric vehicles are new to the market so there is a lack of information about their resale value and there is uncertainty about durability, potential technological developments and battery life.

154. Lower than average residual values act as a further disincentive to fleet buyers by increasing their overall fleet’s vehicle costs. The standard tax depreciation rate for passenger vehicles is thus perceived as unfair, in part because they receive a poor return on investment. They perceive that the total cost of ownership over a 5-year period will be higher for electric vehicles, but they are unable to deduct the tax on the additional cost from their taxable earnings annually. An accelerated tax depreciation rate for electric vehicles would therefore help make them more cost-effective and competitive with conventional vehicles.

155. The impact identified by relevant industry groups is a question about the timing and value of tax depreciation deductions rather than a permanent tax effect. When the asset is disposed of, the Income Tax Act 2007 requires a wash-up to calculate if the relevant tax depreciation rate has correctly spread the cost of the asset over its economic life.

156. Tax policy officials advise that proposals for accelerated depreciation would be inconsistent with the Government’s revenue strategy, which supports a broad-base low-rate tax system and generally avoids tax concessions. Keeping the tax bases as broad as practical minimises the distortionary impact taxes can have on decision-making in terms of consumer choice and decisions to produce goods and services. The primary function of the tax system is to raise revenue to finance government expenditure in a fair and efficient way; its function is not to encourage particular types of economic activity. If the Government wishes to encourage a particular economic activity it is preferable for this to be done in a transparent way by direct funding rather than through the tax system.

157. That said, the policy principle behind tax depreciation is that the deduction should match the economic life of the asset. Within these parameters, and keeping in mind the principles of New Zealand’s broad-base low-rate tax system, there may be a case to consider whether the current tax depreciation rate that applies to the entire New Zealand passenger vehicle fleet is appropriate for electric passenger vehicles.

158. Relevant industry groups (for example, Drive Electric, electric vehicle manufacturers) can discuss their concerns with Inland Revenue directly. Industry would be required to make an economic case for change, including a clear indication of the fiscal costs.

159. Depreciation rates for electric passenger vehicles are not administratively determined by Inland Revenue and any work on this issue would need to be prioritised against other items on the Government’s tax policy work programme.
Measures to be progressed outside of the package

160. We have assessed the following measures as having merit, but being more suitable for progression over the medium-term as part of wider reviews within the relevant departments or agencies.

Measure 9: Amending ACC levies for plug-in hybrid electric vehicles (PHEVs)

We recommend that this issue be deferred until there is a wider review of the NZ Transport Agency’s annual vehicle licensing classification system.

161. The owners of PHEVs pay more in ACC levies than equivalent diesel or electric vehicle owners. This is considered to be inequitable and a disincentive to ownership.

162. This anomaly results from the way in which ACC levies are collected as well as the way in which PHEVs are classified by the NZ Transport Agency and ACC.

163. ACC levies are collected from vehicle owners either exclusively through annual vehicle licensing (as is the case for electric and diesel vehicles), or through a combination of annual vehicle licensing and the ACC motor vehicle levy placed on petrol. Under this system a petrol driven vehicle pays a lower ACC levy as part of their annual vehicle licence compared to a non-petrol driven vehicle (for example, pure electric and diesel vehicles), as they are also charged an ACC levy at the petrol pump.

164. PHEVs are overcharged because they are classified as ‘non-petrol driven’ vehicles. Non-petrol driven vehicles are charged a higher ACC levy as part of their annual vehicle licence as it is assumed they do not pay a levy on petrol. However, as PHEVs may use petrol for approximately 40 percent of their travel, they end up making additional ACC levy payments.

165. We estimate that (under the new ACC levy rates on petrol from July 2015) PHEV owners will pay, on average, an additional $15 to $40 per annum in ACC levies beyond what other non-petrol vehicle owners are paying.

166. This additional levy equates to a net cost to consumers of approximately $4,000 per annum (assuming the 2014 level of PHEV ownership: 220 vehicles in the fleet).

167. Our preliminary modelling suggests PHEV numbers may increase to 2,600 or 0.07 percent of the vehicle fleet in 2020. In this scenario, the cumulative cost of the additional ACC levy would reach approximately $159,200 by 2020 (assuming 2015 prices and no increase in the ACC levy rate on petrol or change in PHEV fuel economy).

Options

168. The options considered to address this anomaly were:

option 10.1 – defer this issue until there is a wider review of the NZ Transport Agency’s annual vehicle licensing classification system

option 10.2 – undertake a review of the levy rate charged on PHEVs by ACC and amend if necessary.
Assessment of the options

169. Option 10.1 is preferred. While there is an equity issue related to the overpayment by PHEV owners, the cost involved in removing this anomaly is considerably greater than the expected net benefit to consumers. ACC estimates that the one-off cost of changing the levy rate charged as part of the annual licensing of PHEVs would be between $0.5 million and $1.2 million. The NZ Transport Agency estimates that reclassifying PHEVs in the Motor Vehicle Register would cost between $60,000 and $200,000.

170. The additional cost of the ACC payment to the individual PHEV owners is also unlikely to be a disincentive to purchasing these vehicles as it is hidden within annual vehicle licensing costs.

171. Should you wish to pursue option 10.2, the following steps would need to be taken.

171.1. You would need to write to the ACC Minister to request that ACC undertakes a review of the PHEV levy rate.

171.2. Should ACC consider it appropriate to amend the rate charged on PHEVs, both ACC and the NZ Transport Agency would need to collaborate to design an operational policy to identify, classify, and charge PHEVs with a new levy.

171.3. You would need to write to the NZ Transport Agency Board requesting that they direct the Agency to collaborate with ACC in this process.

172. Note that ACC and the NZ Transport Agency would need to develop this operational policy prior to June 2015. ACC need to consult on levy changes before seeking Cabinet approval and the next cycle of consultation is set for August 2015. Missing this deadline would delay consultation until the 2017 consultation cycle, or necessitate an out-of-cycle consultation, which would in turn increase the cost of this process.
Measure 10: A road user charges (RUC) rate for plug-in hybrid electric vehicles (PHEVs)

We recommend that officials investigate setting a RUC rate for PHEVs shortly before any RUC exemption is due to end.

173. When the RUC exemption ends, PHEVs will have to pay RUC as well as FED on any petrol used. They could apply for a refund of FED, but the burden of doing so may be a disincentive for uptake of PHEVs, and increase the NZ Transport Agency’s administrative costs. We can investigate setting a RUC rate for PHEVs shortly before any RUC exemption is due to end.
Measure 11: Removing battery import duties

We recommend that this issue be considered in the context of New Zealand’s participation in the Environmental Goods Agreement negotiations at the World Trade Organization. We will continue to work with the Ministry of Foreign Affairs and Trade (MFAT), MBIE and the New Zealand Customs Service to establish the impact of any future changes to the tariffs on electric vehicle batteries.

174. New Zealand has joined 17 other World Trade Organization members (including China, the European Union, Japan and the USA) in negotiations towards an Environmental Goods Agreement in the World Trade Organization context.

175. The possible inclusion of electric vehicles in any final Environmental Goods Agreement outcome may have a noticeable impact on the global uptake of electric vehicles through faster and deeper cost reductions, for not only electric vehicles but also associated technology including batteries and charging infrastructure.

176. Replacement batteries for electric and hybrid vehicles are subject to a 5 percent import duty, which may add to battery replacement costs for owners. This duty represents a relatively small component of the cost of replacing a battery, but any reduction in battery replacement cost would ‘nudge’ consumers to consider electric vehicles as an affordable option.

177. The 5 percent import duty is in place to assist New Zealand manufacturers of batteries. Though such domestic manufacturers appear to no longer exist, Cabinet has agreed that the rate remains in place until 30 June 2017.

178. MFAT advises that import duties on replacement batteries for electric vehicles continue to play an important role as negotiating coin in the context of trade negotiations, particularly the negotiations towards an Environmental Goods Agreement.

179. MFAT is opposed to any unilateral action to reduce import duties on replacement batteries. Import duties on a range of environmentally friendly technologies, including electric vehicles and replacement batteries, may be reduced in accordance with an eventual Environmental Goods Agreement outcome, assuming that these technologies are part of the final package.

180. Further analysis is required on the impact of tariff duty on imports of replacement batteries for electric vehicles, noting that in 2014, 98 percent of the $12.8 million trade in lithium-ion batteries entered free of tariff duty.

181. We will continue to work with MFAT, MBIE, and the New Zealand Customs Service to establish the impact of any future changes to the tariffs on electric vehicle batteries.

182. We consider this the preferred way forward. Given the removal of duties requires Cabinet approval, it would be preferable to have the input and support of relevant departments and ministers.

183. MBIE advises that if the recommendation is to put in place a new tariff concession scheme, this process would take approximately 4 months (this includes the policy development process).
We recommend that feebates not be pursued as a measure for encouraging the uptake of electric vehicles. We recommend that feebates should be further investigated as a mechanism for reducing GHG emissions across the vehicle fleet as a whole.

184. Feebate schemes reward purchasers of low emission vehicles with a rebate on the purchase cost while vehicles with higher emissions are charged a fee. We previously advised that feebates could be a way to provide a subsidy to purchasers of electric vehicles without imposing a cost on government, as the fees charged to higher emissions vehicles can fund the rebates to lower emissions vehicles.

185. Feebates reward the consumer ‘up front’ for future cost savings and related long-term societal benefits of reduced GHG emissions. Feebates aim to improve vehicle emissions performance across the vehicle market rather than incentivising electric vehicles per se.

186. Feebates have been implemented in France, and feebate-like systems are in place in other areas such as the Netherlands and California. Evidence suggests the French and Dutch systems have been effective in achieving reductions in GHG emissions from new vehicles, but the impact on the uptake of electric vehicles is less clear. In France, uptake of electric (both pure electric and PHEVs) and hybrid vehicles is low (3.4 percent of the new vehicle market in 2013). In comparison, in other markets the uptake of the three classes is higher (for example, Japan with 21 percent of all new vehicles in 2013, Norway with 12.8 percent, the Netherlands with 11.3 percent, and California with 10.3 percent).

187. After further analysis we conclude that feebate systems are unsuitable solely as a mechanism to encourage the uptake of electric vehicles. International studies have found the major impact of feebates is to incentivise improved emissions performance of existing vehicle models, rather than achieving a shift in the models purchased. Increased uptake of electric vehicles may be an indirect effect of feebates. However, the costs of establishing a feebates scheme solely to encourage electric vehicle uptake would outweigh the benefits (if that was measured in terms of additional electric vehicles being purchased).

188. While we do not recommend that feebate pursued as a measure for encouraging the uptake of electric vehicles, we consider feebates should be further investigated as a mechanism for reducing GHG emissions across the vehicle fleet as a whole. We note that feebates are reported to be a relatively simple way to begin reductions in fuel consumption and GHG emissions in countries that have not yet developed programmes for this purpose. We intend to provide analysis in further advice to you scheduled for May 2015.

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12 The rebate/fee would be applied at the time the vehicle is first registered.
Measure 13: Recognition of alternative low emission vehicle designs

We recommend that changes to the regulatory framework for recognising alternative vehicle designs not be pursued as a measure for encouraging the uptake of electric vehicles. However, this issue should be further investigated as a mechanism for reducing GHG emissions across the vehicle fleet as a whole.

189. One approach car manufacturers have taken to reduce the price of electric vehicles, and to make them travel further on a standard battery charge, is to make the vehicles smaller and lighter than traditional cars. New Zealand road safety standards and classifications, however, prevent a number of smaller electric vehicles from operating on our roads.

190. A number of alternative low emission vehicles can legally be used in Europe and Japan, but not in New Zealand. For example, the French manufacturer Renault makes a vehicle called the Twizy. This vehicle gets acceptable ratings in the European New Car Assessment Programme crash testing, but cannot be used in New Zealand as it does not meet existing vehicle classifications. Google’s proposed small driverless car would also not be able to be used in New Zealand as it falls outside our current standards.

191. Currently, there may be ways to resolve these issues within the regulatory framework\textsuperscript{13}, but it is not clear whether this is an efficient or robust method for assessing alternative low emission vehicles.

\textsuperscript{13} For example, the NZ Transport Agency is able to “declare that a vehicle is a mobility device or is not a motor vehicle” in certain cases. The NZ Transport Agency exercised this power to declare Yike Bikes (a small folding electric motorbike made in New Zealand) not to be motor vehicles in September 2014.
Measures that were not considered worth progressing

*Measure 14: Lower registration and annual vehicle licensing fees for electric vehicles*

We recommend that no change to registration fees be considered, given first registration fees are currently differentiated on motor size. We also recommend that annual licensing fees not be differentiated to favour better performing vehicles as adjustments to existing fees would not provide sufficient economic value to act as an incentive.

192. The Sustainable Business Council suggested fees for first registration of vehicles favour better performing vehicles. As with annual licensing fees, the bulk of the fee payable at first registration is the ACC levy. The next highest component of the fee payable is the registration fee, which is currently differentiated on motor size.

193. Most passenger cars (between 1301 to 2600 ccs) are charged $112. We understand the first registration fee payable by an electric vehicle would be around $90.

194. The effectiveness of this option may be limited by the relatively small one-off cost of registration compared to the purchase price of the vehicle. However, given on-road costs are advertised at the point of purchase, this would likely have a nudge effect on consumers.

195. The Sustainable Business Council also suggested that the fee for annual licensing (commonly known as ‘registration’) of vehicles be structured so that better performing vehicles are charged less.

196. The bulk of the annual licence fee charged to motorists is the ACC levy. The licence fee itself only amounts to $43.50 (excluding GST). Given its low value, any adjustment of this fee to reflect vehicle performance would be a very weak incentive to purchasers.

*Measure 15: GST exemption for second-hand electric vehicles*

We do not recommend further consideration of a GST exemption for electric vehicles.

197. MRP suggested a GST exemption be provided for second-hand imported PHEVs to incentivise their importation to New Zealand over Australia. We note that New Zealand has a broad based tax system under which GST is applied at the same rate to all goods and services. Exempting individual items from GST does not align with government policy and has not been provided for other consumer items.
ELECTRIC VEHICLES: UPDATE ON DEVELOPMENT OF PACKAGE TO ENCOURAGE UPTAKE

Reason for this briefing
Over the past month you have had several discussions with transport officials about electric vehicles (EVs) issues. This paper summarises those discussions and sets out the way we will progress these issues.

Action required
Note that we will engage stakeholders to develop a joined-up EV package.

Confirm that your March decisions on an EV package still stand.

Agree which options you would like further advice on for funding electric vehicle (EV) charging infrastructure.

Agree that we provide you with a draft Cabinet paper in October.

Deadline
24 August 2015

Reason for deadline
To provide direction for progressing an EV package Cabinet paper.

Contact for telephone discussion (if required)

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<tr>
<th>Name</th>
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<td>Senior Adviser</td>
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<tr>
<td>Erin Wynne</td>
<td>Manager, People and Environment</td>
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MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 14 August 2015

Briefing number: OC03334

Attention: Hon Simon Bridges

Security level: In-Confidence

Minister of Transport’s office actions
☐ Noted          ☐ Seen             ☐ Approved
☐ Needs change   ☐ Referred to     ☐ Overtaken by events
☐ Withdrawn      ☐ Not seen by Minister
Purpose of report

1. This briefing reports back on the following issues related to an electric vehicle (EV) package:
   1.1. the engagement process we will follow to develop a package (Part 1)
   1.2. charging infrastructure issues (Part 2)
   1.3. confirmation of EV measures that you agreed to in April 2015 (Part 3)
   1.4. EV car sharing (Part 4)
   1.5. tax certainty for purchasers of EVs (Part 4).

2. This briefing builds on the advice we provided in March 2015 regarding measures to encourage the uptake of EVs (OC02885 refers).

Background

3. In April 2015, you agreed that a package of measures to encourage EV uptake should include:
   3.1. an information campaign by the Energy Efficiency and Conservation Authority (EECA)
   3.2. government branding, promotion and information support for public charging infrastructure
   3.3. a trial of EVs in government fleets.

4. At a subsequent meeting on 27 July 2015, you asked officials to:
   4.1. work with local government and industry to ‘co-create’ a package of measures to encourage the uptake of EVs
   4.2. investigate options to fund EV charging infrastructure from the National Land Transport Fund (NLTF)
   4.3. consider the potential for scaling up an EV car sharing scheme
   4.4. consider options to give greater tax certainty to purchasers of EVs.

5. This paper addresses the matters above and seeks confirmation of your decisions regarding an EV package in April 2015.
Part 1: The engagement process we will follow to develop a package

6. We have discussed with you options to develop an EV package (through a ‘co-creation’ process) with other government departments, local government and industry.

7. At a Natural Resource Sector Chief Executives meeting on 13 August 2015, Martin Matthews spoke to Fraser Whineray (Chief Executive of Mighty River Power) and Penny Nelson (Executive Director of the Sustainable Business Council) about the co-creation of a package of measures to encourage EV uptake. He proposed a meeting of chief executives from a range of organisation to initiate the process. We plan to hold this meeting in the next fortnight.

8. Along with Mr Whineray and Ms Nelson, the chief executives from Local Government NZ, the Ministry for the Environment (MfE), the Ministry of Business, Innovation and Employment (MBIE), EECA, the NZ Transport Agency, and Drive Electric will be invited to the meeting. It is anticipated that these stakeholders could act as intermediaries with industry to manage the potential risks discussed later in this briefing.

9. Focused one-on-one and small group meetings with a wider group of stakeholders, such as those listed in Table 1 below, would follow. The purpose of these discussions is to develop a EV package that creates synergies between the EV initiatives of each party. This includes leveraging funding, information, services or access to land and other property.

Table 1: List of the stakeholders that we will seek to engage with

<table>
<thead>
<tr>
<th>Central Government</th>
<th>Local Government</th>
<th>Industry</th>
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</thead>
<tbody>
<tr>
<td>NZ Transport Agency</td>
<td>Local Government NZ</td>
<td>Sustainable Business Council</td>
</tr>
<tr>
<td>EECA</td>
<td>Auckland Transport</td>
<td>Electricity Networks Association</td>
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<tr>
<td>MBIE</td>
<td></td>
<td>Drive Electric</td>
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<tr>
<td>MfE</td>
<td></td>
<td>Mighty River Power, Contact Energy, Vector, Z Energy and potentially other energy companies</td>
</tr>
<tr>
<td>Treasury</td>
<td></td>
<td>Automobile Association</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fleet Manager’s Association</td>
</tr>
</tbody>
</table>

10. We have already been working with a number of these organisations to develop our advice on EVs, and have existing relationships on which to base an engagement process.

Risks around engagement and deliverables

11. Stakeholders have divergent interests in some areas and we are aware of a number of tensions between them. As noted above, we expect that the group of chief executives that we convene will also discuss how to manage these tensions in the development of an EV package.
12. Engaging a limited group of stakeholders poses a risk that parties not included in the process feel their potential contribution is not being recognised. We can manage this risk by emphasising that the delivery agencies for an EV package will engage with interested parties as they implement the package. If there is appetite for it, we could consider establishing an industry-government group (similar to the Smart Grid Forum) to progress a joint work programme on transport and environment issues, which includes encouraging uptake of EVs. We can test stakeholders’ appetite for such a group during engagement on the EV project.

13. We previously agreed to provide you with a draft Cabinet paper seeking agreement to an EV package in September 2015. We now intend to engage with stakeholders over August and September, and will be in a position to provide you with a draft Cabinet paper in October. A draft Cabinet paper in October would include information on local government and/or industry’s contribution to the package. If you prefer to receive a draft Cabinet paper in September, we could draft it to seek agreement only to the Government’s contribution to an EV package.

Part 2: Charging infrastructure

14. On 27 July 2015, you asked for initial advice on:

14.1. the cost implications of charging EVs

14.2. the regulatory issues surrounding EV charging infrastructure

14.3. the potential to fund EV charging infrastructure from the NLTF.

EV cost implications for households and businesses

15. Evidence from countries such as the UK shows that most EV charging takes place at the home or workplace, but there will also be a role for public charging infrastructure to help alleviate range anxiety, facilitate longer distance travel, and enhance the value of EVs.

16. The high rates of off-street parking in New Zealand and our 230 volt power supply, are both ideal for charging EVs at home, or at the workplace, and therefore do not pose additional infrastructure costs. A benefit of home charging, is that there is an opportunity to use off-peak electricity capacity. Electricity retailers are already looking at this issue, and some (such as Mercury Energy) already offer off-peak rates for charging EVs, which are 30 percent cheaper than standard rates.

17. If businesses want to install purpose-built chargers, there would be a one off installation cost. These costs vary between $1,500 and $5,000 depending on the type of charger (single or dual). Rapid charges cost significantly more. Juicepoint advised that their rapid charger is $30,000 and installation is a further $10,000 (both figures are GST exclusive). ABB, another EV charging station retailer, states that its rapid charger costs approximately $45,000, but that the per-unit cost would be less for bulk purchases.

18. EV owners who do not have access to off-street parking would likely require access to public EV charging stations. Local authorities would need facilitate the provision of local roadside charging if considered necessary for residences without off-street parking.

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1 The cost of charging an EV is the equivalent of paying approximately 26 cents per litre of petrol, or less if they make use of off-peak charging rates.
Regulatory issues with installation of EV charging infrastructure

19. Different issues arise depending on whether EV charging infrastructure is to be installed on private land or public land.

Private land

20. WorkSafe NZ is responsible for electrical safety. EECA advise that charging on private property is accommodated under a WorkSafe NZ approach. This simply requires the equipment and installation involved to be safe, which includes adherence to codes of practice where applicable.

Public land

21. We have not yet identified all the regulatory issues related to EV charging infrastructure on public land. It is likely that councils have different bylaws that may apply to the installation and use of charging infrastructure on public land.

22. EECA officials are currently drafting a proposal to address identified knowledge gaps in this area. This includes knowledge about the regulatory framework for establishing charging infrastructure. A range of government departments, local government and industry may hold the information to fill in knowledge gaps and will work together on this issue. The proposed work is unlikely to be completed before the end of September 2015.

23. Local regulatory issues have recently come to the fore in Auckland. It took Vector many months to gain approval to install a roadside charging station outside its headquarters in Auckland. We understand that Vector eventually resolved this issue through the precedent set by its installation of other electricity distribution equipment on public property. We have yet to fully assess the barriers in this case but we are investigating further.

24. One identified regulatory issue, is that the parking space is located on a local road and cannot be designated as an EV-only parking space (because no such designation exists). This means that any vehicle could park in the space, thus preventing an EV owner from using the charging station. We will need to consult with the NZ Transport Agency and local authorities to determine the best way to resolve this issue. We will keep you updated on this work via the weekly report.

Previous advice regarding EV charging infrastructure

25. In March 2015, we advised of two market failures relevant to the provision of EV charging infrastructure:

25.1. coordination problems – motorists may be reluctant to purchase EVs without widespread access to public charging infrastructure, but the private sector may be reluctant to invest in infrastructure until there is widespread uptake of EVs

25.2. information problems – for example, a recent survey of New Zealand fleet managers and drivers showed that many do not know where they would be able to charge an EV.

26. In the short term, these issues can be addressed by providing information to motorists about their options for charging EVs, and the development of visible charging infrastructure. The private sector is beginning to invest in charging infrastructure. For instance, industry stakeholders have been clear that the ‘renewables highway’ being scoped by the Electricity Networks Association will not require funding from the Government. Individual companies such as Vector, Z Energy and Gull have also indicated plans to install public charging
The first public charging stations in downtown Auckland have also recently been installed, through a partnership between Auckland Transport and Mighty River Power.

27. In our March 2015 advice we suggested that government involvement in establishing EV charging infrastructure should primarily be through guidance\(^2\), branding, and promotional support to facilitate a cohesive network. We also suggested that the Government could fund, or co-fund, the installation of EV charging stations in locations where it is not commercially viable for the market to do so\(^3\), or at central government-owned locations/buildings.

**Options for funding EV charging infrastructure from the National Land Transport Fund (NLTF)**

28. You asked us to explore options for funding EV charging infrastructure from the NLTF. As charging stations for EVs are a land transport service, they are eligible for funding from the NLTF.

29. The options for funding EV charging infrastructure from the NLTF are summarised and assessed in Table 2 below. All of the options could involve NLTF funding in the standard form of grants (as almost all transport projects are funded), or through a loan from the NLTF or similar mechanism (which has only been used on rare occasions in the past, such as the Christchurch rebuild).

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\(^2\) For example, providing advice on standards, any necessary consents, and health and safety issues.

\(^3\) This would be more effective once we see if there are gaps in the network that the market cannot fill.
Table 2: Options to fund EV charging infrastructure from the NLTF

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Issues</th>
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</table>
| 1      | Amend the GPS to include a new activity class from which EV charging infrastructure can be funded. For example, establishing an “electric vehicles” or “transport technology” activity class. | Under this option:  
- EV infrastructure projects would not have to compete with a wide range of other land transport projects  
- the funding assistance rate could also be set at a higher rate, lowering the required contribution from local authorities  
- be assessed on the same basis as other land transport projects, meaning that they would need to achieve a cost-benefit ratio of at least 1 (which, given low uptake of EVs, is unlikely).  
If this option is pursued we suggest it be considered within the development of GPS 2018. While GPS 2015 could be amended, GPS 2015 has only just come into force, and amending it and regional and national land transport plans would be a considerable undertaking. |
| 2      | Amend the GPS to provide funding for EV charging infrastructure from an existing activity class. For example, this would involve amending the GPS to clarify that EV charging infrastructure falls within the scope of ‘local road improvements’. | Under this option EV infrastructure projects would:  
- have to compete for funding with other projects in that activity class, and therefore there is no guarantee that they will be funded  
- have to receive a local share of at least 51 percent of the funding  
- EVs charging infrastructure projects would still need to achieve a cost-benefit ratio of at least 1.  
If this option is pursued we suggest it be considered within the development of GPS 2018 for the same reasons above. |
| 3      | Funding EV charging infrastructure from the NLTF, but outside of the GPS. A small number of activities are funded in this way, such as search and rescue. | This option would require legislative change, as activities that are funded this way are specified in the Land Transport Management Act 2003. The currently specified activities have a strong user-pays link to the funds. For instance, boaties pay petrol excise duty and receive the benefit of search and rescue services. |

Risk of crowding out private sector investment

30. To prevent crowding out of private investment we recommend adopting a co-investment approach regardless of which funding option is chosen. This could involve mobilising funding from the NLTF, the Crown, and other parties, or funding from the NLTF/Crown with other parties providing land and/or other resources. We will be able to determine what each party can offer in this space once we engage with them.

31. It is also likely that as EV adoption becomes more widespread, more companies will want to begin charging a fee for the use of public charging infrastructure. We will need to consider how this transition will occur alongside local authorities and industry to ensure that investments we make in the short term do not create issues for the market later.

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4 Though the funding comes from petrol excise duty, technically the money is taken prior to going into the NLTF.
Part 3: Confirming EV measures that you agreed to in April 2015
Progressing other measures agreed to

32. In addition to government support for public charging infrastructure, you also agreed that the EV package should include funding for an information campaign by EECA and a trial of EVs in government fleets (OC02885). We still recommend that the EV package include these measures.

33. In our March 2015 advice, we recommended an EV information campaign as a measure to help overcome information barriers. Research commissioned by the Ministry and EECA has confirmed that there are significant gaps in the knowledge of fleet managers and fleet vehicle drivers with regard to EVs. We have asked EECA to provide further details about the scope and cost of an EV information campaign for a Cabinet paper on the EV package. In particular, options for the sources of funding for a campaign will be explored.

34. Since the new All-of-Government vehicle procurement solution was announced in June 2015, we have been working with the MBIE and EECA to scope a trial, including discussing governance arrangements for a trial. This will allow us to provide further information about the design of the trial and costings as part of a Cabinet paper on the EV package. Crown funding for this will likely need to be sought and we expect it to be in the order of $500,000.

Part 4: Other measures discussed – EV car sharing and tax certainty

EV car sharing in Auckland

35. On 27 July 2015, we discussed with you the potential to scale up the EV car sharing scheme currently being investigated by Auckland Transport. Auckland Transport will issue an open Request for Proposal document to companies interested in establishing the scheme. The proposed scheme would have an initial fleet of 200 – 300 vehicles supported by around 350 charging stations across the city.

36. Other car sharing schemes that use EVs, such as DriveNow which you recently visited in San Francisco, have been established without direct government support. For instance, DriveNow was established as a joint venture between BMW and a car rental company. However, government may need to address barriers to private sector investment in these types of businesses.

37. We had informal discussions with officials from Auckland Transport at the Smart Transport Forum on 6 August 2015. They were positive about the scope for central and local government to work together to progress EV initiatives and have expertise (including lessons learned) from the roll out of EV initiatives in the UK that they are eager to share. We have yet to formally engage with Auckland Transport on this work.

City Hop’s concern about access to charging infrastructure

38. At your meeting with officials on 10 August 2015, you raised City Hop’s concerns regarding Auckland Transport Request for Proposal and access to EV charging infrastructure. In particular, it considers that Auckland Transport could achieve a better outcome by collaborating with existing market players. We will investigate this issue and report back to you.
Providing greater certainty to companies regarding the tax position of EVs

39. In our March advice, we suggested that you consider the following measures:

39.1. reviewing the method for calculating fringe benefit tax for EVs

39.2. inviting stakeholders to discuss with tax policy officials the case for having higher depreciation rates for EVs.

40. Since the March 2015 paper, we have found further evidence that EVs are depreciating more quickly than petrol/diesel vehicles. In Japan for instance, it appears that EVs are losing between a third and half of their value in the first year. It is unclear exactly why this is, but uncertainty about battery performance and the superior performance of newer EV models may play a role.

41. Given the continued uncertainty about the depreciation rate and resale value of EVs, there is a question as to whether the tax system should favour the Crown or favour the taxpayer. For example, if the tax depreciation rate for an EV is 20 percent in year 1, but actual depreciation is 30 percent, businesses are unable to recognise that loss as it occurs.

42. We consider that a review of the tax treatment of EVs would help identify whether the amending the tax treatment of EVs is appropriate. Tax officials would have to lead this review. Based on our earlier engagement with tax officials on the issues of fringe benefit tax and depreciation rates for EVs, we understand that they are open to such a review but would need a clear mandate from Ministers to undertake this work. The Cabinet paper on an EV package could seek such a mandate.

43. We will also explore the option of establishing a grant for EV purchases. While you have stated that an EV package is unlikely to include direct subsidies, a grant may be justified on the basis that it offsets any potential tax disadvantage or risk faced by businesses or individuals that wish to purchase an EV.

Recommendations

44. The recommendations are that you:

(a) note that in April 2015 you directed officials to prepare a Cabinet paper on the following measures:

1. an information and promotion campaign by EECA
2. government branding, promotion and information support for public charging infrastructure
3. a trial of electric vehicles in government fleets

(b) note that these additional measures were discussed at your meeting with officials on 27 July 2015:

1. government funding for an EV car sharing scheme
2. options to provide greater certainty to businesses regarding the tax position of EVs, including the possibility of a grant

(c) note that we will convene the chief executives of key stakeholders with an interest in EV within the next fortnight to initiate engagement on an EV
package

(d) note that we will discuss the measures in (a) and (b) with stakeholders as part of our work to develop an EV package

(e) confirm that we prepare a Cabinet paper seeking agreement to:

1. an EV information campaign by EECA
2. government support for public charging infrastructure
3. a trial of EVs in government fleets
4. any other measures that you agree to following stakeholder engagement

(f) agree that we provide further advice on the following option(s) for funding EV charging infrastructure from the NLTF:

1. amend the GPS to create a new activity class from which EV charging infrastructure can be funded
2. amend the GPS to allow for the funding of EV charging infrastructure from an existing activity class
3. funding EV charging infrastructure from the NLTF but outside of the GPS

(g) agree that we provide you with a draft Cabinet paper on an EV package in October, with a view to taking a final paper to Cabinet in November.

Adviser

Erin Wynne
Manager, People and Environment

Withheld under section 9(2)(a) of the Official Information Act 1982

MINISTER’S SIGNATURE:

DATE:
ELECTRIC VEHICLES: RESEARCH INTO FUTURE PRICE AND SUPPLY

Reason for this briefing
We commissioned a report (attached) into the future price and supply of new electric vehicles. This briefing provides you with the key findings of the research and advises you of how we intend to use it.

Action required
Note the contents of this briefing.

Deadline
N/A

Reason for Deadline
N/A

Contact for telephone discussion (if required)

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<td>Erin Wynne</td>
<td>Manager People and Environment</td>
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MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 27 August 2015

Attention: Hon Simon Bridges (Minister of Transport)

Briefing Number: OC03296

Security level: In-Confidence

Minister of Transport’s office actions

☐ Noted
☐ Seen
☐ Approved

☐ Needs change
☐ Referred to

☐ Withdrawn
☐ Not seen by Minister
☐ Overtaken by events
Purpose of report

1. To inform you of the key findings of research we commissioned into the future price and supply of new electric vehicles and advise you about how we intend to use the research.

2. This briefing also provides a response to regulatory issues related to neighbourhood electric vehicles and heavy electric vehicles, which are noted in the report.

About the research

3. We contracted the consulting firm Emission Impossible Limited to synthesise existing research on projections for electric vehicle supply, production, and price for the period 2015 to 2030, including quantifying the:

   3.1. expected level of electric vehicle production in New Zealand's key supply markets

   3.2. potential supply of new electric vehicles into New Zealand

   3.3. expected change in the price of new electric vehicles available to the New Zealand market.

4. The research is presented in the attached paper entitled Research into the long-term trends for electric vehicle price and supply – understanding developments in the global market (the report).

5. The report was peer reviewed by officials from the Ministry of Transport and the Energy Efficiency and Conservation Authority.

6. The research did not explore potential supply and prices for used electric vehicles. We investigated the prospects for the used market first-hand during a visit to Japan in June 2015. We have shared the findings from this trip with the wider Ministry, other government departments, and the Smart Grid Forum. We will also use the findings from Japan to inform our final advice to you on a package of measures to encourage the uptake of electric vehicles.

Summary of key findings – production and supply projections

Production

7. Not unexpectedly, the report concludes that the future market share of electric vehicles is highly uncertain. Table 1 below shows the range of mainstream estimates of electric vehicle production collated in a review of global and European projections (Ricardo AEA, 2013).

Table 1: Mainstream estimates of new electric vehicle production (as a percentage of total production) for light duty vehicles

<table>
<thead>
<tr>
<th>Technology</th>
<th>Market share in 2020</th>
<th>Market share in 2030</th>
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<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Medium</td>
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<tr>
<td>Plug-in hybrid and battery electric combined</td>
<td>2%</td>
<td>4%</td>
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</table>
8. Based on the literature reviewed, and notwithstanding the uncertainty in projected electric vehicle demand and production, the report considers that growth in electric vehicle production capacity will be adequate to meet demand in New Zealand’s key supply markets of Japan and Europe.

9. The report concludes that production of heavy commercial electric vehicles will be limited to a small niche market for the next decade because the current technology has technical constraints.

Supply

10. The responses to a stakeholder survey suggest that supply of electric vehicles in New Zealand is limited at present, compared with international markets, because there is limited demand. The general consensus is that demand in New Zealand will lag behind other countries because:

10.1. the price of electric vehicles relative to internal combustion vehicles is still too high without government support/subsidies/penalties to encourage adoption

10.2. other countries have better charging infrastructure.

11. Although supply of electric vehicles is currently limited in New Zealand, motor vehicle importers consistently report that they could respond quickly to increased demand if sales of electric vehicles did pick up.

Summary of key findings – electric vehicle cost projections

12. The report provides estimates for the incremental cost of manufacturing a battery electric vehicle compared with an internal combustion engine vehicle constructed in accordance with 2010 fuel efficiency requirements.¹

13. The results suggest that the current cost of manufacturing a battery electric vehicle with a 120 kilometre range (e.g. the Nissan Leaf or the Ford Focus) is between NZ$9,500 and NZ$15,000 more than the cost of manufacturing an equivalent internal combustion engine vehicle. This differential is expected to drop to between NZ$3,000 and NZ$8,000 by 2025.

¹ The incremental cost of an electric vehicle may actually be less in future because the cost of manufacturing internal combustion engines is expected to increase due to stricter fuel efficiency standards in vehicle manufacturing markets. However, this may not necessarily translate into price increases for internal combustion vehicles.
14. The current cost of manufacturing a plug-in hybrid electric vehicle with a 50 kilometre all-electric range is between NZ$9,000 and NZ$15,000 more than the cost of manufacturing an equivalent internal combustion engine vehicle. This differential is expected to drop to between NZ$5,500 and NZ$9,000 by 2025.
15. It is not possible to project price with any confidence because reductions in manufacturing costs may not necessarily translate directly into vehicle price. However, there is a general expectation that electric vehicle prices will reduce over time and will eventually be competitive with conventional vehicles.

**Regulatory issues raised in the report**

16. The report raises the following regulatory issues in relation to neighbourhood electric vehicles and heavy electric vehicles:

16.1. Neighbourhood electric vehicles do not meet New Zealand frontal impact regulations.

16.2. Some models of neighbourhood electric vehicles are designed for a maximum speed of 45 kilometres per hour.

16.3. Batteries for electric bus and trucks are heavy and electric buses would be likely to breach limits under the Vehicle Dimensions and Mass (VDAM) Rule.

16.4. The extra battery weight means electric heavy commercial vehicle adopters could pay more under the existing Road User Charges (RUC) regime than they would for comparable diesel vehicles. Any increase in weight reduces the payload, unless the vehicle’s maximum weight rating also increases. In some cases, this might move the vehicle into another RUC cost category.

**Neighbourhood electric vehicles**

17. In March 2015, we provided you with a briefing and report on measures to encourage the uptake of electric vehicles (OC02885). It contained advice on the recognition of alternative low emission vehicles designs, of which neighbourhood electric vehicles are just one.

18. You noted that we would explore the recognition of alternative low emission vehicle designs outside of an electric vehicle package, because the issue is relevant to a much wider range of emerging vehicles (e.g. segways, electric bikes, cars and some autonomous vehicles).

**Vehicle Dimensions and Mass Rule**

19. The VDAM Rule does not differentiate between vehicles on the basis of motive power source. The limits established in the VDAM Rule, including weight, are based on an analysis of matters including safety, contribution to productivity, and infrastructure impacts. Impact on roading is a key issue, but the focus is on maximising the use of New Zealand’s investment in roading infrastructure.

20. A review of the VDAM Rule is underway which is considering limits related to weight. It is guided by Government’s Better Regulation policy and will seek to minimise compliance costs for operators and, as far as is practicable, be future-proofed for emerging technologies.

21. The report suggests that production of heavy commercial electric vehicles will be limited to a small niche market for the next decade. This niche could include electric or hybrid buses, which are currently being considered for purchase in at least one region. Hybrid buses are

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2 Factors influencing price might include the availability of unused battery production capacity, a manufacturer’s desire to be perceived as a technology leader and the willingness of the manufacturer to set a price that will gain market share.

3 A neighbourhood electric vehicle is a three- or four-wheeled vehicle with low power. This term is commonly used in the US but neighbourhood electric vehicles are typically known as quadricycles in Europe. The Renault Twizy is an example of an electric quadricycle.
likely to be only slightly heavier than equivalent diesels, but this could still result in these buses exceeding current weight limits when fully laden. This issue is being considered in the review of the VDAM Rule.

**Road User Charges**

22. Heavy electric vehicles would not be penalised in terms of RUC charges. RUC rates are set according to the type of vehicle, how much it weighs, and how that weight is distributed. The heavier a vehicle is, the more damage it does to the road surface, all other things being equal.

23. The revenue obtained from RUC is used mainly for road construction and maintenance, along with other activities benefiting road users. RUC charges are reviewed as required, depending primarily on government’s revenue requirements. In recent years, there have been annual reviews, but in the past there have been long periods when rates remained the same.

24. The RUC Act 2012 allows for no distinction between heavy vehicles on the basis of their motive power. The only factors taken into account in setting charges for these vehicles are the costs they generate in terms of providing roads and bridges that are adequate for their weight, and repairing damage caused by their use.

25. Gross vehicle mass and relative payload are only some of the factors that determine the cost effectiveness of one type of heavy vehicle over another. The specific freight task, energy efficiency and related vehicle requirements are more relevant to the cost effectiveness of using a particular class of heavy electric vehicle. These more critical factors operate independently of RUC, which is a relatively minor factor in the overall cost of operating a heavy vehicle.

**Next steps**

**Sharing the report with stakeholders**

26. The Ministry has already been approached by the Smart Grid Forum and a consultant acting on behalf of Contact Energy for a copy of the report. The parties agreed to wait for the report on the understanding that we would provide it to stakeholders shortly.

27. We consider that making the report available would be a positive contribution to the discussions and work on electric vehicles by government and private sector organisations. In the first instance, we plan to share the report with the attendees of a meeting of chief executives that Martin Matthews is convening to discuss the electric vehicle package. The meeting will likely occur in the next fortnight. We will then make it available to other interested stakeholders.

**Making the report publicly available**

28. We will make the report available on our public website following Cabinet decisions on the electric vehicle package.

29. We consider there is a low risk of this report being used to criticise government policy on electric vehicles. The report emphasises the uncertainty of projections of future electric vehicle market share. It represents one view of projections based on the most robust information available at the time. We will need to continue to monitor development of the electric vehicle market. In addition, we have existing key messages that we can use to respond to questions about electric vehicle uptake and policy.
Further research

30. The results of the research are being fed into a further piece of work that we have commissioned. Consultants are developing a model for electric vehicle uptake that can be used to test various scenarios, including the impact of measures to encourage the uptake of electric vehicles. We expect this work to be completed by the end of August 2015.

Recommendations

31. The recommendations are that you:

(a) note the key findings of the research we commissioned into the future price and supply of new electric vehicles

(b) note that we will shortly make the report available to stakeholders engaged in the development of the electric vehicle package, and put it on our public website following Cabinet decisions on the package.

Senior Adviser

Erin Wynne
Manager, People and Environment

Withheld under section 9(2)(a) of the Official Information Act 1982

MINISTER’S SIGNATURE:

DATE:
OPTIONS FOR A GOVERNMENT-INDUSTRY PACKAGE
TO ENCOURAGE THE UPTAKE OF ELECTRIC VEHICLES

Reason for this briefing

The Ministry of Transport (the Ministry) committed to providing you with advice, by 30 October 2015, on a Government-industry package to encourage the uptake of electric vehicles.

This briefing provides this advice and seeks an initial discussion with you on the package you would like to progress. We intend to focus this initial discussion on the A3 in Appendix 2 that summarises the package that has broad agreement in principle with stakeholders.

Your office also asked for an A3 summary of the options for the package. This is attached as Appendix 3.

Action required

Consider this briefing and the A3 in Appendix 2 and discuss the measures you would like included in the package at the meeting with the Ministry on 2 November 2015.

Deadline

Monday 2 November 2015

Reason for deadline

This deadline will enable the Ministry to progress the Government-industry package in time for it to be considered by the Cabinet Economic Growth and Infrastructure Committee on or before Wednesday 2 December 2015.

Contact for telephone discussion (if required)

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MINISTER’S COMMENTS:

Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 30 October 2015  Briefing number: OC03519

Attention: Hon Simon Bridges (Minister of Transport)  Security level: In-Confidence

Minister of Transport’s office actions

☐ Noted  ☐ Seen  ☐ Approved

☐ Needs change  ☐ Referred to

☐ Withdrawn  ☐ Not seen by Minister  ☐ Overtaken by events
Purpose of report

1. This briefing seeks direction from you on the measures you would like progressed as a Government-industry package to encourage the uptake of electric vehicles (EVs). It also seeks an initial discussion with you at our meeting on 2 November 2015. We would like to focus this initial discussion on the A3 in Appendix 2 that summarises the package that has been developed with stakeholders.

2. The A3 in Appendix 3 is intended for your meeting with the Prime Minister and senior Ministers on 11 November 2015. It outlines the options for the package coupled with their costs as requested by your office.

Your previous decisions on measures to encourage the uptake of EVs

3. New Zealand will be looking to reduce its transport emissions to help give effect to its post-2020 greenhouse gas emissions reduction target. If conventional vehicles could increasingly be substituted with EVs, New Zealand would reduce its transport emissions without compromising individual mobility or economic growth.

4. In considering the advice we provided on 26 March 2015 (OC02885 attached), you agreed in April that initiatives to encourage the uptake of EVs should include:
   4.1. an information and promotion campaign by the Energy Efficiency and Conservation Authority (EECA)
   4.2. government branding, promotion and information support for public charging infrastructure
   4.3. a trial of EVs in government fleets.

5. At a subsequent meeting on 27 July 2015, you asked officials to work with local government and industry to 'co-create' a package of measures to encourage the uptake of EVs. You also indicated that discussions with these stakeholders could traverse a range of options to reduce the risks and costs for suppliers and purchasers of EVs.

6. As in our previous advice, we define EVs as being motor vehicles powered by electric batteries and plug-in hybrid electric vehicles. Not included in this definition are conventional hybrid vehicles, which have an internal battery but need petrol or diesel to run.

The process we followed to co-create a Government-industry EVs package

7. To effect a co-creation policy process Martin Matthews brought together a group of chief executives from industry, local government and central government agencies. A list of the chief executives involved is in Appendix 1.

8. This group met on 10 September 2015 and was tasked with developing:
   8.1. joint targets specifying a reasonable level of EV uptake that New Zealand can aspire to
   8.2. a Government-industry EVs package that parties would commit to, even conditionally, to achieve the joint targets
   8.3. a governance arrangement that would bring the relevant public and private sector parties together on an ongoing basis to drive uptake.
9. On 12 October, members of the Sustainable Business Council, and local and central government officials came together to workshop a package. On 28 October, chief executives met to consider the draft package of measures to recommend to you. This briefing and the A3 in Appendix 2 reflect this draft package of measures.

The draft package of measures focuses on reducing the barriers that are limiting the uptake of EVs

10. The draft package of measures aims to reduce the barriers that are limiting the appeal of EVs to consumers and businesses. These barriers are the:

10.1. relatively higher purchase prices. Although purchase prices have fallen, prices of EVs are still higher than their equivalent conventional vehicles. Most consumers do not recognise the additional value of EVs, such as their environmental benefits

10.2. limited travel range of EVs. The range of pure EVs is generally up to 150 kilometres before they require recharging. This makes their use for long journeys less appealing

10.3. very limited range of EV models available in New Zealand. The small EV range has to compete in the market against the substantially wider range of conventional vehicles. Many conventional vehicles offer superior features and good fuel efficiency

10.4. information problems. These problems include a lack of awareness of EVs, uncertainty about the total costs of ownership (for instance maintenance costs, battery life and residual values) and misconceptions about EVs

10.5. coordination problems. For example, consumers and businesses may be reluctant to purchase EVs without public charging infrastructure being widely available. However, the private sector may be reluctant to invest in a comprehensive charging network until there is widespread uptake of EVs.

11. The barriers of purchase price and travel range will reduce in the medium term. Industry experts expect electric vehicles to reach price parity with conventional vehicles between 2018 and 2025. Battery technology is also likely to improve, extending the travel range of EVs. These improvements will make the economic case for adopting EVs more compelling for consumers and businesses.

12. However, in the absence of government intervention, the barriers relating to the limited range of EV models, information and coordination are unlikely to reduce quickly enough for EVs to be a credible part of New Zealand’s strategy to reduce transport emissions.

13. This is because the information and coordination barriers are to an extent market failures. The level of cost and risk that the motor vehicle industry and electricity providers would face in addressing them is likely to be prohibitive. The availability of a wider range of models is likely to follow the increased uptake of EVs in the New Zealand market, but could be improved through government intervention in the short term.

The draft package of measures

14. The A3 in Appendix 2 outlines the draft package. It covers the initiatives that are being, or could be, done to increase the uptake of EVs. The package has five elements:

14.1. procurement across private and public sector fleets

14.2. a contestable fund for innovative projects
14.3. normalisation to make EVs a regular vehicle choice
14.4. charging infrastructure
14.5. financial incentives.

15. Of these elements, stakeholders broadly agree that the Government-industry package should focus primarily on the first three elements, as the other two are already in place, or underway. Nevertheless, this paper includes measures that would enhance both of the last two elements.

16. These measures are the three measures that you agreed in April, see paragraph 4 above, and six new measures that are discussed in paragraphs 19–62.

17. To be included in the proposed package initiatives had to pass the test that they:

17.1. will work with the other measures to collectively address the barriers that are limiting the appeal of EVs to consumers and businesses

17.2. offer benefits in barrier reduction that are likely to outweigh their costs and risks.

18. The total cost of the package will depend on the level of ambition under the package. For the EVs package to have momentum, we estimate that if all options were included at least $5–10 million per annum for 5 years would be required. Additional Crown funding would be sought for the package as part of Budget 2016.

**Procurement measures to facilitate an increase in the number of EVs in fleet purchases**

**Joint procurement for government and private sector fleets**

19. The key procurement initiative from the co-creation process is to have joint EV procurement for government and private sector fleets. This initiative would aggregate vehicle purchases in order to achieve lower prices and/or an increase in the number of EV models available.

20. The initiative envisages a government agency co-ordinating the joint procurement with a commitment from public agencies and private businesses to purchase a set number of EVs. The Ministry of Business, Innovation and Employment (MBIE) could act as the co-ordinating agency but it would require a clear mandate from Cabinet and, potentially, additional funding.

21. The need for joint procurement would diminish with time. It would not be needed once the purchase price of EVs nears that of conventional vehicles.

22. Joint procurement would be successful if it achieves a price discount, or an increase in model availability, that outweighs the costs and risks involved. The risks are that:

22.1. even with joint procurement the volume of vehicles purchased may be too low to influence purchase prices or model availability

22.2. the procurement agent negotiates the procurement of a number of vehicles that are then not wanted by their would-be buyers. It could then be left with the costs involved, including arranging for the sale of the surplus vehicles

22.3. it could reduce the ability of the existing mechanisms of vehicle procurement to secure ongoing savings and reasonable delivery options. For instance, the All-of-Government contract for vehicle procurement could be negatively impacted.
23. We would need to analyse the significance of these issues before this option is progressed. The arrangements for joint procurement would also need to be developed.

24. We have had initial discussions with MBIE about this initiative. It has advised that it could undertake an assessment of the feasibility of the initiative by March 2016 if funding were provided. It would need funding because MBIE’s procurement unit operates on a cost-recovery basis.

25. Given the need for further work, if you support this option we advise seeking Cabinet agreement in principle for it at this stage.

A trial of EVs in government fleets

26. You previously agreed that an EV trial in government fleets should be considered as part of the Government-industry package. In light of the joint procurement initiative we would like to discuss with you whether you still want to pursue an EV trial.

27. The type of trial we had previously discussed envisaged trialling 24 vehicles in four government fleet locations. This would require one-off funding of approximately $500,000 to cover the incremental costs of the trial vehicles. Industry feedback was that a trial at this level lacked credibility given the level of fleet uptake by leading businesses (for instance Air New Zealand, which is converting its whole fleet to EVs where feasible).

28. Discussions with MBIE suggest that a trial could be scaled up, for example, by adding an additional 24 vehicles each year. To put this in perspective, currently there are over 20,000 vehicles in the government fleet. Around 4,000 new vehicles are purchased through the All-of-Government contract each year. About 42 percent of these purchases are for compact passenger vehicles, like the Toyota Corolla.

A financial ‘kickstarter’ for the purchase of EVs in government fleets

29. Alongside the joint procurement initiative the Government could consider providing a financial ‘kickstarter’ to incentivise the purchase of EVs in government fleets. The kickstarter was not discussed during the co-creation process, so is not included in the summary of the whole package (Appendix 2) or the summary of options and costings (Appendix 3).

30. We know from discussions with MBIE that government agencies are facing difficulties in maintaining their current fleets and have been delaying the replacement of vehicles. The kickstarter is one way of overcoming barriers to government fleet buyers adopting EVs.

31. The kickstarter would involve one-off Crown funding to cover the price differential between a conventional vehicle and an EV equivalent. Funding of $1 million would fund around 100 EVs.

32. The key risk with a financial kickstarter is that it could attract criticism regarding the use of public money in a constrained fiscal environment.

33. This risk could be mitigated by making it clear that the initiative will yield a positive public outcome. This outcome is demonstrating to businesses and individuals how New Zealand can transition to a lower carbon future.
A contestable fund for innovative projects that reduce the barriers to EV uptake

34. To maximise the efforts of industry and government in addressing the barriers to EV uptake and to encourage innovation a contestable fund could be included in the package. The fund would be akin to the Urban Cycleways Programme in that it would co-fund projects developed by businesses or local communities.

35. In our view, a co-fund is warranted because the barriers require a joint Government-industry effort to reduce them. Key to the government role is reducing the risks and costs that the motor vehicle industry and electricity providers face in growing demand for EVs.

36. Examples of the type of projects that could be co-funded include:

36.1. the creation and promotion of branded tourism routes using EVs. On such routes tourists could hire EVs, and preferentially park and charge them at participating tourist attractions, information centres, cafes and accommodation venues.

36.2. demonstrations of vehicle types currently not used in New Zealand, such as electric vans in commercial fleets.

37. The contestable fund would require Crown funding with the actual amount depending on the level of ambition sought and the expected impact of EV uptake of any initiatives. In our view, an appropriate amount would be in the order of $5–10 million per annum over five years. We consider that this amount could co-fund up to 10 to 20 projects.

38. The key risk with providing government funding is that it could fund initiatives that local government or industry may have provided anyway. This risk would be reduced through the co-funding approach. Further, the fund’s criteria would be designed to ensure that only initiatives warranting government investment are funded.

39. If you support this option the Cabinet paper for the package would seek an in-principle agreement to establish a contestable fund. You would then seek agreement on the quantum of funding, the criteria for assessing proposals and on the administrative arrangements at a later date.

Normalisation to make EVs a regular vehicle choice

Having targets for uptake to demonstrate commitment and focus effort

40. Targets for EV uptake also warrant consideration. Targets would demonstrate the Government’s commitment to reducing transport emissions via EVs. They would also provide a tangible way to focus government and industry efforts in this area.

41. Targets would contribute to tackling the information barrier by raising awareness of EVs among consumers and businesses. This would help to normalise perceptions about the purchase of an EV. For instance, by changing the perception of an EV being a risky vehicle to purchase to it being a regular vehicle choice.

42. For the year ended 30 September 2015, 438 EVs were sold bringing the total number of EVs in our light vehicle fleet to 817. This is 0.024 percent of the light vehicle fleet.

43. In our modelling, the status quo scenario forecasts EVs being around 12 percent of new vehicles sold in 2020. This is about 11,500 vehicles. This means that there will be about 43,000 EVs by 2020 (including used EVs) which is over 1 percent of the light vehicle fleet.
44. The proposed package would set the following targets for EV uptake:

44.1. 1,000 EV sales in 2016
44.2. 5,000 EV sales in 2017
44.3. 25,000 EV sales in 2019.

45. The proposed targets are very ambitious, particularly the one for 2019. We will be stress testing these targets with industry representatives on 2 November 2015 using available modelling. This is important as all parties involved in developing the draft package want targets that are ambitious but still credible.

46. As part of this stress test, parties will need to consider how far the joint package will take us towards the targets and the respective contributions that would be required from central government agencies, local government and business.

47. The key risk with specifying targets is that ultimately they may not be met. Non-achievement could give opponents an opportunity to criticise Government policy. In our view, however, this risk is limited by the fact that the package will be a joint Government-industry one.

48. The risk could also be mitigated by stating at the outset that the targets are deliberately ambitious and have been set primarily to galvanise effort.

Other normalisation initiatives in the package

49. In addition to targets, the following measures that you agreed to in April will assist with making EVs a regular vehicle choice:

49.1. an information and promotion campaign by the Energy Efficiency and Conservation Authority (EECA)

49.2. government branding, promotion and information support for public charging infrastructure.

Replacing the remainder of the road user charges exemption with upfront payments to EV purchasers

50. As an alternative to allowing the current road user charges (RUC) exemption to run to 2020, we could investigate the option of converting it into upfront payments to encourage the purchase of EVs.

51. With this option the RUC exemption would end on 30 June 2016. In its place, purchases of EVs would come with a one-off upfront payment equivalent to the average amount of RUC that would have been paid up to 2020.

52. For example, someone purchasing an EV on 1 July 2016 would receive a one-off upfront payment of around $2,500\(^1\). Each year they would be required to pay RUC like all other vehicle owners. Assuming 10,000 kilometres are driven in a year, the annual RUC amount would be $620 (GST inclusive). Someone purchasing an EV on 1 July 2019 would receive an upfront payment of $620 and pay RUC of a similar amount.

\(^1\) This is based on the existing RUC rate of $62 per 1,000 kilometres (GST inclusive) and an average distance travelled of 10,000 kilometres. The actual upfront payment would be $2,480.
53. To ensure current owners of EVs are not disadvantaged EVs registered before the exemption expires on 1 July 2016 would continue to be exempt from RUC until 2020.

54. This measure would offer a stronger financial incentive for people to purchase EVs than the current RUC exemption. Generally, there is more benefit in receiving a one-off upfront payment than in being exempt from paying out the same amount of money over several years. This reflects the falling value of money in an environment with inflation.

55. The option would also be fiscally neutral for the National Land Transport Fund (NLTF). This is because the monies needed for the upfront payments would be recovered from RUC. However, the NZ Transport Agency would face a small increase in administration costs to effect the individual payments.

56. The NZ Transport Agency would also need to manage the impact on the NLTF’s revenue streams, with upfront payments being made up to five years before they are substantially recovered. As discussed later in paragraph 69, our forecasts suggest that between now and 2020, the foregone annual RUC revenue will increase from $294,000 to $9.5 million.

**Risks and mitigation**

57. The key risk with this option is that it could raise equity concerns. For example, it could be criticised as providing a subsidy to companies and individuals who are financially able to purchase EVs without the upfront payment. Although the exemption has the same practical effect, this option could re-emphasize the equity issue.

58. This risk would be managed by making it clear that this measure, like the others, focuses on encouraging an uptake of EVs as a means to reduce New Zealand’s transport emissions. So although the option offers private benefit, its purpose serves a wider public goal.

59. We tested this proposal with chief executives from industry and government agencies on 28 October 2015. The reaction was mixed. The general response was that removing the RUC exemption to provide an upfront payment would not affect fleet purchase decisions. This is because these decisions are largely based on total cost of ownership, which factors in upfront and running costs. However, it could make EVs more appealing to private vehicle purchasers.

60. We still need to clarify how upfront payments could be made from the NLTF. Consequently, if you are comfortable with progressing this option we advise seeking Cabinet agreement in principle at this stage. Final Cabinet agreement would be subject to confirmation that the option could be implemented using the NLTF.

**Governance arrangements for the ongoing leadership and coordination of the EVs package**

61. Stakeholders have expressed support for a government agency to convene a group that provides ongoing leadership and coordination of the initiatives in the package. The group would consist of seven to eight people and would have representatives from industry, local government and relevant government agencies.

62. We agree that this type of governance arrangement is desirable. If you support this initiative the Cabinet paper would seek agreement to you deciding on the detail of the governance group. This includes its terms of reference, its members and its administrative arrangements.
We advise against the EVs package including an extension of the road user charges exemption

63. Currently, light EVs are exempt from RUC until 30 June 2020. We do not recommend extending the exemption beyond 2020, as it would increasingly compromise the user-pays basis of the transport system.

64. When Cabinet agreed to the exemption, it was on the basis that it would apply until EVs make up 1 percent of the vehicle fleet. An end-date of 2020 was selected as the year most likely to coincide with this level of EV uptake.

65. The Ministry has revised its forecasts for sales of EVs. The main factors impacting on the forecasts are anticipated price reductions in EVs, and the greater availability of new EVs on the market.

66. Our revised forecasts still support the view that EVs will make up 1 percent of the fleet by 2020. However, the revised forecasts show significantly increased sales of EVs from 2019 onwards, than were previously forecast.

67. With such an increase in uptake, a RUC exemption would mean that the cost burden of building and maintaining the road networks would fall on a smaller proportion of road users. This would raise equity issues. It would also exacerbate revenue pressures and consequently limit or delay desirable transport investment.

68. Currently, the RUC exemption results in foregone annual revenue of around $294,000. With the uptake of EVs increasing we estimate that by 2020 foregone annual revenue could be around $9.5 million. By 2025 it could be about $77 million rising to around $217 million by 2030 if the exemption remained in place.

69. If the exemption was extended this level of foregone revenue would have to be recovered from other road users. Alternatively, the National Land Transport Programme of investments would have to be reduced.

Using National Land Transport Funding to support charging infrastructure

70. You asked for advice on whether charging infrastructure for EVs could be funded through the NLTF.

71. Having charging infrastructure in place for EVs is a key part of supporting their uptake. This is because it addresses the range anxiety associated with EVs. Range anxiety limits a consumer’s desire to purchase and use an EV.

72. Funding for charging infrastructure could be provided through the NLTF via an amendment to the Government Policy Statement (GPS). Such an amendment would either create a new activity class to fund the infrastructure or allow funding to be provided from an existing activity class.

73. In our view, the option to provide NLTF funding for charging infrastructure is best progressed as part of the development of GPS 2018. This is because it will allow decisions about the role and level of NLTF funding to be informed by the scale and reach of private sector investment over 2016.

74. Getting the role and level of NLTF funding right is important. This is because parties such as Mighty River Power, Vector and Charge.net.nz have made it clear that they are willing to invest in charging infrastructure without government financial support.
However, they do want support to clarify the consenting process and to promote the charging infrastructure they establish. They also see a potential need for government investment in charging infrastructure at locations where commercial action is not viable. Public investment could provide infrastructure necessary to complete a network.

The draft package of measures has risks as has using a co-creation process

We have noted the specific risks of each measure in the relevant sections above. As well, across the package there is a risk of role creep on the part of government. Specifically, there is a risk that government will invest public resources in reducing barriers that legitimately are the private sector’s to address.

In our view, this risk is being managed through the design of the initiatives. This design limits the Government’s role to:

77.1. the provision of independent information about EVs and the role they can play in reducing transport emissions

77.2. facilitating the resolution of co-ordination challenges, through lowering the costs and risks of private sector investment, for a limited period of time only.

Using a co-creation process to develop the package has also brought a level of risk. It has meant that we have engaged with a limited group of stakeholders. Parties not included in the process could think that their potential contribution is going unrecognised.

This risk will be managed by having the delivery agencies engage with interested parties as the EVs package is implemented. This opportunity for engagement will be emphasised in media announcements about the package.

Suggested process and timeline from here

We are seeking to have an initial discussion with you about the measures you want included in a Government-industry package at our meeting on 2 November 2015. We would like to base this discussion on the A3 in Appendix 2.

Following our discussion, we will make any needed amendments to the A3 in Appendix 3. This A3 is intended for your meeting with the Prime Minister and senior Ministers on 11 November 2015. It outlines the options for the Government-industry package coupled with their costs.

We will also finalise the draft Cabinet paper that we have been preparing.

In terms of timing, in our view it would be desirable to gain Cabinet agreement to a Government-industry package in early December 2015. This would enable the package to be announced in New Zealand at a time that coincides with the 2015 Paris Climate Conference, which will take place over 30 November to 11 December 2015.

Announcing the package over the time of the 2015 Paris Climate Conference would ensure that the package attracts maximum public attention. This in turn would enhance your opportunity to communicate its purpose and content.

To enable the EVs package to be announced in early to mid December 2015, the Cabinet paper would have to be considered by the Cabinet Economic Growth and Infrastructure Committee by Wednesday 2 December 2015.
86. Ideally, an announcement would involve the wider group involved in the co-creation process. The Sustainable Business Council has already indicated that it is willing to support a joint or parallel announcement.

Consultation

87. To date, consultation with government agencies has been limited to those involved in the co-creation process. We seek your agreement to consult other government agencies with an interest in the EVs package.

88. Consultation would be done by circulating the draft Cabinet paper that we have been preparing. The draft to be sent to government agencies will reflect our 2 November 2015 discussion.

Recommendations

89. The recommendations are that you:

(a) **consider** the A3 in Appendix 2 that summarises the package that has been developed with stakeholders

(b) **indicate** following our discussion on 2 November 2015, which of the following initiatives you would like progressed as a Government-industry package to encourage the uptake of EVs:

   i. allowing joint EV procurement for government and private sector fleets

   ii. having a trial of EVs in government fleets

   iii. providing a financial ‘kickstarter’ for the purchase of EVs in government fleets

   iv. establishing a contestable fund for innovative projects that reduce the barriers to EV uptake

   v. having an information and promotion campaign by the Energy Efficiency and Conservation Authority

   vi. establishing targets for EV uptake, with the targets being those outlined in paragraph 44

   vii. providing government branding, promotion and information support for public charging infrastructure
viii. replacing the remainder of the road user charges exemption with upfront payments to people, or companies, who purchase EVs

ix. having governance arrangements for the ongoing coordination of EV policies and activities

(c) **note** that initiatives (b)(i) and (b)(viii) require further investigation and we envisage Cabinet agreement only being sought in principle at this stage

(d) **note** that initiative (b)(iii) has not been discussed with stakeholders as part of the co-creation process and could be considered as part of initiative (b)(i)

(e) **indicate** whether you would like initiative (b)(iii) to be included in the package for discussion with Senior Ministers on 11 November 2015

(f) **note** that in our view an appropriate amount for the contestable fund would be $5–10 million per annum over five years. However, we seek direction from you as to the quantum you consider desirable

(g) **agree** that the option of extending the road user charges exemption for EVs beyond 2020 not be progressed

(h) **agree** that the funding of charging infrastructure for EVs be considered as part of the development of GPS 2018

(i) **note** that it would be desirable to announce the EVs package in New Zealand during the time of the 2015 Paris Climate Conference

(j) **agree** that a Cabinet paper be considered by the Cabinet Economic Growth and Infrastructure Committee on Wednesday 2 December 2015, or sooner if you would like, to enable an announcement to be made during the Paris Climate Conference,

(k) **agree** that the government agencies with an interest in the EVs package be consulted via a draft Cabinet paper that will reflect our discussion on 2 November 2015
(l) Consider the A3 in Appendix 3 that outlines the options for the package coupled with their costs.

Principal Adviser

Erin Wynne
Manager, People and Environment

MINISTER'S SIGNATURE: Withheld under section 9(2)(a) of the Official Information Act 1982

DATE:
Appendix 1

The chief executives of the organisations involved in co-creating the EVs package

<table>
<thead>
<tr>
<th>Name, organisation</th>
<th>Photo</th>
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</thead>
<tbody>
<tr>
<td>Penny Nelson, Sustainable Business Council</td>
<td><img src="image1.jpg" alt="Photo" /></td>
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<tr>
<td>Fraser Whineray, Mighty River Power</td>
<td><img src="image2.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>Simon Mackenzie, Vector represented at the meetings by Brian Ryan</td>
<td><img src="image3.jpg" alt="Photo" /></td>
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<tr>
<td>Christopher Luxon, Air New Zealand represented at the meetings by James Gibson</td>
<td><img src="image4.jpg" alt="Photo" /></td>
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<tr>
<td>Greg Skelton, Wellington Electricity</td>
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<tr>
<td>Dennis Barnes, Contact Energy represented at the meetings by Todd Spencer</td>
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<tr>
<td>Name</td>
<td>Association</td>
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<td>----------------------------------</td>
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</tr>
<tr>
<td>Mark Gilbert</td>
<td>Drive Electric</td>
</tr>
<tr>
<td>Eric Pyle</td>
<td>Drive Electric</td>
</tr>
<tr>
<td>Brian Gibbons</td>
<td>The New Zealand Automobile Association</td>
</tr>
<tr>
<td>Malcolm Alexander</td>
<td>Local Government New Zealand</td>
</tr>
<tr>
<td>David Crawford</td>
<td>Motor Industry Association</td>
</tr>
<tr>
<td>Graeme Peters</td>
<td>Electricity Network Association</td>
</tr>
<tr>
<td>David Smol</td>
<td>Ministry for Business Innovation and Employment</td>
</tr>
<tr>
<td>Name</td>
<td>Organization</td>
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<tr>
<td>-------------------------------------------</td>
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</tr>
<tr>
<td>Vicky Robertson</td>
<td>Ministry for the Environment</td>
</tr>
<tr>
<td></td>
<td>represented at the meetings by Peter Brunt</td>
</tr>
<tr>
<td>Mike Underhill</td>
<td>Energy Efficiency Conservation Authority</td>
</tr>
<tr>
<td>Martin Matthews</td>
<td>Ministry of Transport</td>
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</tbody>
</table>
## Appendix 2: The New Zealand Inc Electric Vehicle Package

### Shared Governance

- Governance group jointly lead by CEO of Business NZ/Sustainable Business Council, a government department, Local Government New Zealand

<table>
<thead>
<tr>
<th>Procurement</th>
<th>Business</th>
<th>Central Government</th>
<th>Local government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet uptake</td>
<td>Fleet uptake</td>
<td>Fleet uptake e.g., Auckland Council, Christchurch City Council’s holding companies</td>
<td></td>
</tr>
<tr>
<td>Branding of vehicles</td>
<td></td>
<td>Auckland Transport and Christchurch City Council investigating electric car sharing schemes</td>
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<td></td>
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</tbody>
</table>

### Contestable fund for innovative projects

- Project proposals
- Co-funding contribution for approved projects
- Implementation

<table>
<thead>
<tr>
<th>Contestable fund for innovative projects</th>
<th>Establish and administer contestable fund and investment framework</th>
<th>Government co-funding contribution for approved projects</th>
<th>Project proposals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation</td>
<td>Monitor and report on effectiveness of the fund</td>
<td>Co-funding contribution for approved projects</td>
<td>Implementation</td>
</tr>
</tbody>
</table>

### Normalisation

- Advocacy and corporate engagement to encourage electrification by other fleet owners
- Mighty River Power partnering with Audi, Mitsubishi, Holden, Nissan and BMW including point of sale promotional material
- Vehicle technology knowledge hub (MoT and AT)
- Car companies promoting their electric vehicles
- Publicity

<table>
<thead>
<tr>
<th>Normalisation</th>
<th>Advocacy and corporate engagement to encourage electrification by other fleet owners</th>
<th>Mighty River Power partnering with Audi, Mitsubishi, Holden, Nissan and BMW including point of sale promotional material</th>
<th>Vehicle technology knowledge hub (MoT and AT)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>We could also investigate the potential for special electric vehicle licence plates. This has not been analysed</td>
<td></td>
<td>Christchurch Electric Vehicle Forum (established and chaired by Council).</td>
</tr>
<tr>
<td>Publicity</td>
<td></td>
<td></td>
<td>Investigate possibility of preferential parking for electric vehicles</td>
</tr>
</tbody>
</table>

### Charging infrastructure

- Consortium of organisations to establish ‘renewables highway’
- Lines companies installing charging infrastructure independently and in partnership with others

<table>
<thead>
<tr>
<th>Charging infrastructure</th>
<th>Consortium of organisations to establish ‘renewables highway’</th>
<th>National information, guidance and promotion for public charging infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lines companies</td>
<td>Lines companies installing charging infrastructure</td>
<td>National information, guidance and promotion for public charging infrastructure</td>
</tr>
</tbody>
</table>

### Financial incentives

- Off-peak electricity rates for electric vehicle owners
- Light electric vehicles are exempt from paying road user charges until 2020
### Appendix 3: Summary of electric vehicle package

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target audience</th>
<th>Description</th>
<th>Implementation considerations</th>
<th>Costs</th>
<th>Expected outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZ Inc targets for electric vehicle uptake</td>
<td>General public and local government.</td>
<td>The electric vehicle industry and general public.</td>
<td>Easy and quick once agreed. Can be publicised through usual communication channels and overseen by governance group (see below).</td>
<td>No direct costs.</td>
<td>Would set the level of ambition and help focus efforts of all parties to achieve a common goal.</td>
</tr>
<tr>
<td>Contestable fund</td>
<td>Local authorities and businesses (chiefly in the transport, energy, and tourism sectors).</td>
<td>An EV programme or fund (modelled on the Urban Cycleways Programme) to co-fund projects that encouraged the uptake of electric vehicles. This option would encourage the market and local communities to develop innovative projects to address the market failures/barriers that are limiting the uptake of EVs.</td>
<td>Moderate effort to implement once funding and governance is confirmed. Could be established within 6-12 months.</td>
<td>$5-10 million per annum for 5 years. The overall quantum of the fund depends on level of ambition and scope, but co-funding would potentially be in the order of $250,000 to $1 million per project.</td>
<td>Would assist in overcoming information and coordination problems in the market and help to normalise EVs. Could attract additional models of EVs to New Zealand.</td>
</tr>
<tr>
<td>Fleet procurement</td>
<td>Central government agencies.</td>
<td>A trial of EVs in the government fleet. An EV trial would provide valuable information to government and private fleet buyers, and enhance the credibility of any other Government action on electric vehicles. More aggressive options for government fleet procurement would be revisited following a trial.</td>
<td>Moderate effort to implement once funding and governance is confirmed. Could be established within 6-12 months. Would requiring going out to market with a request. Could repeat the trial year on year adding a further 24 vehicles each year for the life of the trial.</td>
<td>$500,000 is estimated to cover the incremental cost of 24 vehicles in four government fleet locations, including charging infrastructure and monitoring costs. The trial could be scaled up if desired.</td>
<td>Would demonstrate the functionality of EVs to government and other fleet buyers. Would help dispel myths about EVs and actively show Government confidence in EVs.</td>
</tr>
<tr>
<td>Normalisation: Information and promotion campaign</td>
<td>Government (central and local) and business fleet buyers.</td>
<td>Joint public/private EV procurement for fleets. Under this option, the a government agency would coordinate a joint EV procurement process, with a commitment from public agencies and private business to purchase a set number of EVs. The feasibility of this option is undetermined, therefore only in-principle agreement would be sought in the short-term. Joint procurement could potentially target new and near-new EVs, depending on demand. Initial estimates are that the public and private sector would commit to purchase 500 EVs each, however this would depend on the price and conditions negotiated.</td>
<td>Moderate effort (3 months) to investigate feasibility once funding and governance is established. Likely high effort (12 months) to implement once feasibility is determined. Would require the procurement agent to go to market.</td>
<td>Funding for investigation of feasibility. If feasible, funding for procurement work on a cost recovery basis and the additional cost of EVs for the government fleet (to be determined, depending on the bulk price negotiated).</td>
<td>Would help to reduce price and may result in additional models of EVs being introduced to New Zealand. Would also help to build the early market for peripheral EV services and goods e.g. trained EV technicians.</td>
</tr>
<tr>
<td>Government support for charging infrastructure</td>
<td>Fleet buyers and motoring public.</td>
<td>An information and promotion campaign by EECA. A campaign would focus on fleet buyers and industry engagement. The campaign would seek to address information barriers, facilitate coordination of the sector and enhance the visibility of other initiatives to address barriers to uptake. Clear success measures would be established for the campaign to ensure that it achieves its objectives.</td>
<td>EECA can deliver this campaign. It has already laid the groundwork for developing a campaign so it would be quick (less than 6 months) to implement once funding and a mandate is confirmed.</td>
<td>A campaign focused on fleet managers and industry engagement would cost about $850,000 per year. Funding could come from reserves held by EECA and/or reprioritisation.</td>
<td>Would help overcome information problems, particularly among fleet buyers. The campaign would provide verified information to buyers to overcome myths and encourage behaviour change.</td>
</tr>
<tr>
<td>Governance arrangements for joint package</td>
<td>Central and local government, and business sector organisations.</td>
<td>The Government could support the private sector to establish a network of EV charging stations by offering branding, information and promotion support to the private sector. This would include clarifying the regulatory regime that applies to the installation of charging infrastructure on public land.</td>
<td>Moderate effort (less than 12 months) to implement once a mandate is confirmed.</td>
<td>No additional funding required. Costs will be covered by baseline departmental funding in the first instance.</td>
<td>Would overcome barriers to installing public EV charging infrastructure, help promote development of a cohesive and visible network and help create visibility.</td>
</tr>
</tbody>
</table>

Fleet owners, lease companies, large businesses, and government bodies.

An information and promotion campaign by EECA. A campaign would focus on fleet buyers and industry engagement. The campaign would seek to address information barriers, facilitate coordination of the sector and enhance the visibility of other initiatives to address barriers to uptake. Clear success measures would be established for the campaign to ensure that it achieves its objectives.

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Government support for charging infrastructure

Fleet buyers and motoring public.

The Government could support the private sector to establish a network of EV charging stations by offering branding, information and promotion support to the private sector. This would include clarifying the regulatory regime that applies to the installation of charging infrastructure on public land.

Moderate effort (less than 12 months) to implement once a mandate is confirmed.

No additional funding required. Costs will be covered by baseline departmental funding in the first instance.

Would overcome barriers to installing public EV charging infrastructure, help promote development of a cohesive and visible network and help create visibility.

Governance arrangements for joint package

Central and local government, and business sector organisations responsible for implementation.

The governance group is likely to involve joint leadership from central and local government, and business with a total of 6 members. Terms of Reference for the governance group would need to be established and approved by Minister(s).

Relatively easy and quick (less than 6 months) to implement develop Terms of Reference and establish the governance group.

Some funding could be required for implementation of the EV package, and help drive ongoing uptake as the market continues to evolve.
ELECTRIC VEHICLES: FOLLOW UP TO YOUR MEETING WITH MINISTRY OF TRANSPORT OFFICIALS ON 2 NOVEMBER 2015

Reason for this briefing
This briefing provides you with information on a range of issues that you raised about the electric vehicle package at your meeting with Ministry of Transport officials on 2 November 2015.

Action required
Note the contents of this briefing and discuss with Ministry of Transport officials at your meeting on 9 November 2015, if possible.

Deadline
Monday 9 November 2015.

Reason for deadline
To inform a potential discussion about the electric vehicle package with Ministry of Transport officials on 9 November 2015.

Contact for telephone discussion (if required)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Direct line</th>
<th>Telephone</th>
<th>After hours</th>
<th>First contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erin Wynne</td>
<td>Manager, People and Environment</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 06 November 2015

Attention: Hon Simon Bridges (Minister of Transport)

Briefing number: OC03559

Security level: In-Confidence

Minister of Transport’s office actions
- [ ] Noted
- [ ] Seen
- [ ] Approved
- [ ] Needs change
- [ ] Referred to
- [ ] Not seen by Minister
- [ ] Overtaken by events

RELEASED UNDER THE OFFICIAL INFORMATION ACT
Purpose of report

1. The purpose of this briefing is to respond to a range of issues that you raised about the proposed government-industry electric vehicle (EV) package at your meeting with Ministry of Transport (Ministry) officials on 2 November 2015. These issues include:

1.1. the scope of a potential information campaign for EVs by the Energy Efficiency and Conservation Authority (EECA)

1.2. whether the Electricity Levy can be used to fund the contestable fund or other measures proposed in the draft EV package

1.3. the potential role that the New Zealand Transport Agency (NZ Transport Agency) could play in establishing EV charging infrastructure – we have divided this into:

1.3.1. within existing Government Policy Statement (GPS) settings, and

1.3.2. options for funding charging infrastructure from the National Land Transport Fund (NLTF)

1.4. information about public investment in charging infrastructure in other countries

1.5. the link between the exemption from road user charges (RUC) for light EVs and the proposed targets for EV uptake

1.6. the potential to extend the RUC exemption to heavy EVs

1.7. the scope of the proposed contestable fund, and its link to EV procurement options

1.8. the actual numbers of EVs that business fleets have already purchased, or have committed to purchasing.

2. We have updated the A3 overview of the government-industry package in accordance with your direction. The revised A3 is attached.

3. The Sustainable Business Council Advisory Board met on 5 November 2015 to consider the proposed package. Feedback from that meeting is in paragraph 84.

4. You also raised tax issues related to EVs at your meeting with Ministry officials. On 9 November 2015, we will provide your office with a briefing on these issues for your meeting with the Minister for Revenue, Hon Todd McClay.

An EECA information campaign would target business fleets and assist with industry coordination

5. The information and promotion campaign would have two components:

5.1. a campaign targeted at business fleets (estimated at $400,000 per year)

5.2. industry engagement and coordination (estimated at $450,000 per year).
Business fleets campaign

6. An EECA information campaign would target businesses because most new cars come into New Zealand through fleet purchases, so business fleets are a key market to influence. In addition, overseas experience indicates that employees who experience an EV at work are more likely to consider an EV for their own private vehicle.

7. Barriers to uptake include misconceptions and nervousness about adopting new technology. As EECA has already conducted market research into business fleets, it would be possible to roll out a targeted information campaign quickly.

8. Through the campaign, EECA would aim to persuade business fleet operators to include EVs in their fleet purchases by:
   8.1. enabling easy cost comparisons via online tools
   8.2. overcoming information barriers through workshops and other events
   8.3. providing opportunities to trial EVs first-hand
   8.4. showcasing high profile businesses that have already successfully adopted EVs.

Industry engagement and coordination

9. EECA would provide a point of coordination for the range of businesses and industry bodies involved in the EV market, to avoid duplication of effort or public confusion. EECA would engage with all relevant parties to ensure that projects such as fast-charging networks or EV charging brands are coordinated, promoted in a cohesive way, and are accessible to all market entrants.

10. Identifying and mitigating emerging risks to the EV programme would be part of this workstream. For example, EECA has already started a gap analysis to identify information and capability needs for EVs (e.g. ensuring that the relevant parties are taking steps to develop appropriate capacity for effective emergency response in the event of a crash involving an EV).

Using the Electricity Levy to promote EV uptake and associated infrastructure

11. On 2 November 2015, you asked us whether the Electricity Levy could be used to fund measures in the proposed EV package. We have discussed this matter with EECA. However, we understand that your office has subsequently asked the Ministry of Business, Innovation and Employment (MBIE) for similar information by Tuesday 10 November 2015.

12. Given that MBIE administers the legislation under which the Electricity Levy is collected, it will lead the response to you on this issue. We are happy to provide further advice on your direction.

---

1 In October 2015, EECA launched its Total Cost of Ownership tool online.
The NZ Transport Agency’s potential role in establishing EV charging infrastructure within existing GPS settings

13. The NZ Transport Agency advises that it has already begun work to enable the faster uptake of EVs in New Zealand. This work includes:

13.1. collaborating with the Ministry and local government to understand how it can support charging infrastructure

13.2. co-leading work on electric vehicles in the Auckland Transport Alignment Project

13.3. undertaking environmental scanning with partners to better understand the drivers of change in this area.

14. The NZ Transport Agency could, without changing the current investment settings in the GPS, undertake activities as part of the following measures in the government-industry EV package:

14.1. clarify the regulatory framework for charging infrastructure

14.2. provide national information, guidance and promotion for public charging infrastructure.

15. Specifically, the NZ Transport Agency advises that it could explore a variety of initiatives, such as:

15.1. continuing to collaborate with local government partners to develop a set of shared standards and knowledge base on the best placement of charging infrastructure and minimum infrastructure requirements

15.2. providing traffic pattern data to aid with the planning of charging infrastructure placement

15.3. developing standards for signage to indicate charging infrastructure or a special vehicle designation to ensure on-street charging infrastructure is reserved for electric vehicles

15.4. supporting a shared procurement process for charging infrastructure to maximise economies of scale

15.5. investigating the potential to include charging infrastructure at State highway rest stops that are managed by the NZ Transport Agency

15.6. investigating whether it owns any unused land that could serve as a charging site

15.7. funding or co-funding enabling research

15.8. aligning the deployment of charging infrastructure installation and scheduled road works

15.9. streamlining the process to apply for access to the State highway corridor to install charging infrastructure
15.10. adding charging infrastructure locations to the journey information it already provides to customers.

Options for funding charging infrastructure from the NLTF

16. As set out in our advice of 24 August 2015 (OC03334²), we advise against funding public EV charging infrastructure from the NLTF in the next 2 years. Nevertheless there are three ways the NLTF can be used to fund EV charging infrastructure.

Option 1: Amend the GPS to include a new activity class to fund EV charging infrastructure

17. The GPS would be amended to include a new activity class from which EV charging infrastructure can be funded. This option would give greater certainty that charging infrastructure would be funded and built than option 2 or the status quo.

18. EV charging infrastructure projects would not have to compete with a wide range of other land transport projects, however they would compete amongst themselves. For example, an EV charging infrastructure project in Auckland would compete for funding against a similar project in Christchurch. To meet value for money criteria the funding would be demand driven and this may result in some projects not receiving funding.

19. While you can amend the GPS, the addition of a small level of funding is contrary to the rationalisation of activity classes smaller than $15 million annually, which was undertaken for the current GPS. That in itself does not render this option unworkable.

20. Option 1 would require at least a 49 percent contribution to the cost from councils’ local share. You could issue criteria to the NZ Transport Agency to set an enhanced funding assistance rate, which would lower the required contribution from local authorities.

21. A new activity class may be subject to increased scrutiny and trigger a requirement to engage with key land transport stakeholders on a variation to the GPS. If a new activity class is included, the activity class should be enabling to ensure funding is not limited to a specific type of project. Economic growth and productivity, road safety and/or value for money, are specific result areas in the GPS, so there would need to be a clear line of sight between a new activity class and these priorities.

Option 2: Amend the GPS to provide funding for EV charging infrastructure from an existing activity class

22. The GPS would be amended to provide funding for EV charging infrastructure from an existing activity class, e.g. ‘local road improvements’.

23. EV charging infrastructure projects would need to compete for funding with other projects in the activity class and be signalled as sufficiently high priority to compete with existing priorities. Under this option there is no guarantee that EV infrastructure projects would be funded, or that they would meet the value for money assessment by the NZ Transport Agency.

24. EV charging infrastructure projects would be assessed for both their national priority by the NZ Transport Agency and regional priority by Regional Transport Committees against other

² A package including the briefings referred to in this paper has been separately provided to your office, so we have not attached the documents to this briefing.
existing priorities such as congestion relief, efficient freight links and road safety. There is a risk that EV charging infrastructure has insufficient relative priority to be funded.

25. However, this risk could be addressed by including strong signals and direction within the GPS to give EV charging infrastructure priority over the existing GPS results for economic growth and productivity and road safety. This would require a specific result area being set within an activity class.

26. As with option 1 a local share would be required.

Option 3: Fund EV charging infrastructure from the NLTF but outside of the GPS

27. Section 9 of the Land Transport Management Act (LTMA) 2003 allows the Crown to utilise land transport revenue to fund specific activities without the activities needing to participate in the contestable funding process run by the NZ Transport Agency.

28. Under this option, section 9 would be amended so funding for EV charging infrastructure would be from the NLTF but be outside of the GPS. This would effectively reduce funding for the NLTF. A small number of activities are funded in this way, such as Search and Rescue.

29. The current specified activities have a strong user-pays link to the NLTF. For instance, boaties pay fuel excise duty and receive the benefit of search and rescue services.

30. EV owners, currently, do not have a strong user-pays link to the NLTF (i.e. light EVs are exempt from paying RUC until 2020, and plug-in hybrids use less petrol and therefore pay less fuel excise duty than conventional petrol vehicles). Nevertheless, a portion of the registration costs for EVs do fall into the NLTF.

31. If option 3 is progressed it may create an unhelpful precedent for other activities to be treated in a similar manner.

General risks with funding EV infrastructure through the NLTF

32. As value for money is a GPS priority, a cost benefit analysis would need to be completed for EV charging infrastructure projects under all of the options. The cost benefit ratio would need to be greater than 1 for such infrastructure to be considered for funding. This may be difficult to achieve given the current low uptake of EVs in New Zealand, however it may improve in the future.

33. A broader value for money assessment would also need to be undertaken, including assessing the policy alignment with the strategic direction of the GPS.

34. Given EV owners currently do not have a strong user-pays link to the NLTF, there may be equity concerns between EV owners and other vehicle owners that pay RUC and fuel excise duties.

35. Local government have finalised their financial commitments towards the 2015-18 National Land Transport Programme (NLTP) and their land transport planning for the Regional Land Transport Plans that feed into the NLTP, as required by the LTMA. Any call for a new activity and additional local share at this time may not be accommodated without triggering individual councils' significance policies and require re-consultation on a variation to local and regional financial and transport plans.

36. The NZ Transport Agency implemented fundamental changes to the funding assistance rate system for the 2015-18 NLTP. This simplified the funding assistance system with a single rate for each council instead of having different rates for different activities. The NZ Transport Agency has retained the ability to use targeted enhanced rates but sees this being
used only in exceptional circumstances. The setting of funding assistance rates is an independent function of the NZ Transport Agency under criteria that the Minister of Transport may issue.

Ownership of EV charging infrastructure

37. If the Government decided to fund charging infrastructure ownership issues would need to be worked through, as the NZ Transport Agency requires that property and infrastructure for which it provides public funding assistance will be in public ownership.

38. The NZ Transport Agency would consider funding of infrastructure not in public ownership for transport purposes but would do so only on the condition that the use of the facility for transport purposes will endure.

Other considerations for government investment in EV charging infrastructure

39. Our advice in March 2015 (OC02885) recommended Government support the private sector by potentially funding, or co-funding the installation of charging infrastructure in locations where it is not commercially viable for the market to do so.

40. Currently, it is difficult to know when Government would intervene, and how it would be established that a site was not commercially viable for the market to implement charging infrastructure. This makes it difficult to estimate what level of funding would be required from Government.

41. The role of Government in owning EV charging infrastructure would need to be clarified. There will be a need to set out the business case for this investment to clarify who will be maintaining and monitoring sites. This may raise comment regarding whether it is Government’s business to invest in infrastructure that is equivalent to a privately owned petrol station.

The Ministry’s preferred option

42. The Ministry considers the funding for EV charging infrastructure from the GPS or NLTF should be included as part of the GPS 2018 developments. This will provide sufficient time for respective policies to be developed and for any identified regulatory barriers to be assessed.

43. This would also provide opportunity to consider whether other EV activities should be included within a broader EV activity or technology class in the NLTF or GPS.

44. The biggest risk will be whether EV charging infrastructure can meet the threshold for a cost benefit analysis or the value for money assessment against other GPS priorities that would result in funding.

45. The local authorities we have engaged with on the EV package do not see a need for government to invest directly in public EV charging infrastructure. Local authorities are already being approached by private businesses seeking consents and support to establish charging infrastructure. At least one of the main cities is looking to encourage businesses to, as far as possible, establish charging infrastructure off-street (i.e. shopping car parks, parking buildings).
Investment in infrastructure: international approaches

Japan

46. The Japanese Government has made available up to US$500 million dollars over 2 years to support the installation of public EV charging infrastructure (both 200 volt AC chargers and SC fast chargers). Over 10,000 chargers are already in place.

47. Development of public EV charging infrastructure is based on ‘Deployment Plans’ set by local authorities. The Government subsidises two-thirds of the purchase cost and a fixed amount of the installation cost.

48. For multi-unit dwellings (e.g. apartment blocks) the Government subsidises half the purchase cost and a fixed amount of the installation cost.

49. Japan operates on a 110 volt power supply and a high proportion of its urban populations live in multi-unit dwellings. This increases the need for public investment in charging infrastructure.

Norway

50. For households in Norway, the Government offers a sales tax exemption for EVs chargers if purchased with the vehicle itself.

51. There are national and regional subsidies for fast chargers. These fund a percentage of the purchase cost. The market (applicant) decides where to install the charger, and to be eligible for the subsidy the operator must charge a fee for use.

52. There are national, regional and local subsidies for normal EV charging infrastructure. Up to the full cost is subsidised (around €1,250 or about NZD$2050).

United Kingdom (UK)

53. The 2009 Plugged-in Places programme offered matched funding to a consortia of businesses and public sector partners to support installation of EV charging infrastructure in six local areas. The programme has since been expanded to eight new areas.

54. Government grants are available to home owners, local authorities, and train operating companies to install EV charging points.

55. In 2011 the Government also published a nationwide recharging infrastructure strategy.

California

56. The California Energy Commission provides funding for EV charging points. The Electric Vehicle Charging Station Financing Program provides loans for the design, development, purchase, and installation of EV charging stations at small business locations.

57. To support home charging, new building regulations have been amended to make homes ‘EV-ready’, i.e. to encourage new homes to include charging points. This is important because, like Japan, the US domestic power supply is low (120 volts).

---

3 In New Zealand domestic power supply is 230 volts.
The link between the RUC exemption for light EVs and the targets in the proposed EV package

58. The RUC exemption for light EVs applies until 30 June 2020. When the Government agreed to the exemption, it was intended that the exemption would apply until 1 percent of the light vehicle fleet was electric (approximately 30,000 vehicles). At this 1 percent threshold, the foregone revenue from the RUC exemption would be $20 million per year.

59. On 12 October 2015, targets for EV uptake were developed at a government-industry workshop on the EV package. It is intended that these would be ‘NZ Inc’ targets, with central government, local government and business sharing responsibility for achieving them.

60. The table below sets out the targets developed with stakeholders, and estimates how much RUC revenue is foregone due to the exemption for light EVs.

Table 1: Annual RUC revenue foregone if EV uptake targets are met (targets set at 12 October 2015 government-industry workshop)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target – annual registrations of EVs</td>
<td>1,000</td>
<td>5,000</td>
<td>-</td>
<td>25,000</td>
<td>-</td>
</tr>
<tr>
<td>Projected cumulative total EVs (if targets met)</td>
<td>1,950</td>
<td>6,950</td>
<td>14,287</td>
<td>39,287</td>
<td>58,084</td>
</tr>
<tr>
<td>EVs as a % of the vehicle fleet</td>
<td>0.07</td>
<td>0.2</td>
<td>0.5</td>
<td>1.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Foregone RUC revenue (in million $)</td>
<td>1.17</td>
<td>4.17</td>
<td>8.57</td>
<td>23.57</td>
<td>36.85</td>
</tr>
</tbody>
</table>

61. Under these targets, EVs make up about 1 percent of the vehicle fleet by 2019, and almost 2 percent in 2020. This would mean a higher level of foregone revenue than was envisaged by the Government when it agreed to the RUC exemption. The practical impact is that:

61.1. other road users would face greater increases to fuel excise duty and RUC over this period to offset the foregone revenue, and/or

61.2. desirable transport investment may need to be reduced or delayed.

62. On 2 November 2015, we discussed the achievability of the targets with key stakeholders. There was general agreement that the targets developed at the 12 October workshop were too much of a stretch to be credible beyond 2016, so two alternative sets of targets have been proposed. These targets and their associated impact on foregone RUC revenue are set out in Tables 2 and 3.
Table 2: Annual RUC revenue foregone if EV uptake targets are met (doubling the number of EV registrations each year)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target – annual registrations of EVs</td>
<td>1,000</td>
<td>2,000</td>
<td>4,000</td>
<td>8,000</td>
<td>16,000</td>
</tr>
<tr>
<td>Projected cumulative total EVs (if targets met)</td>
<td>1,950</td>
<td>3,950</td>
<td>7,950</td>
<td>15,950</td>
<td>31,950</td>
</tr>
<tr>
<td>EVs as a % of the vehicle fleet</td>
<td>0.07</td>
<td>0.13</td>
<td>0.27</td>
<td>0.53</td>
<td>1.06</td>
</tr>
<tr>
<td>Foregone RUC revenue (in million $)</td>
<td>1.17</td>
<td>2.37</td>
<td>4.77</td>
<td>9.57</td>
<td>19.17</td>
</tr>
</tbody>
</table>

63. Under the targets set out in Table 2, EVs make up about 1 percent of the vehicle fleet by 2020 and foregone RUC revenue is within the tolerance intended by the Government when it originally agreed to the RUC exemption.

Table 3: Annual RUC revenue foregone if EV uptake targets are met (option 3: targets as a percentage of annual vehicle registrations)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target – annual registrations of EVs</td>
<td>1,000</td>
<td>-</td>
<td>5% of registrations (about 12,000 vehicles)</td>
<td>-</td>
<td>10-15% of registrations (about 24,000 – 36,000 vehicles)</td>
</tr>
<tr>
<td>Projected cumulative total EVs (if targets met)</td>
<td>1,950</td>
<td>3,709</td>
<td>15,709</td>
<td>29,863</td>
<td>53,863 – 65,863</td>
</tr>
<tr>
<td>EVs as a percentage of the vehicle fleet (%)</td>
<td>0.07</td>
<td>0.12</td>
<td>0.52</td>
<td>1.00</td>
<td>1.80 – 2.20</td>
</tr>
<tr>
<td>Foregone RUC revenue (in million $)</td>
<td>1.17</td>
<td>2.23</td>
<td>9.43</td>
<td>17.92</td>
<td>32.32 – 39.52</td>
</tr>
</tbody>
</table>

64. The targets in Table 3 would result in a higher level of foregone revenue than was envisaged by the Government when it agreed to the RUC exemption.

65. Under all the proposed targets, EVs make up 1 percent of the light vehicle fleet or more by 2020. Presently, business is most comfortable with the targets in Table 2 which, if achieved, would keep foregone RUC revenue within expectations.

66. If Government and industry achieved the targets in Table 1 or 3, EVs numbers would exceed the threshold set by Government for the RUC exemption. The Government would have to consider its options for managing the higher than anticipated revenue losses that would occur.

The Ministry’s preferred option

67. We favour the targets set out in Table 2 as they send a signal that Government is supportive of a visible increase in the number of EVs in the fleet, are achievable within current projections and have support from stakeholders.

68. There are benefits of the percentage approach taken in Table 3, in that a target range allows for fluctuations in the annual number of EVs available on the market. However, the exact percentage values were not agreed by all stakeholders and would require further discussion.
Extending the RUC exemption to heavy EVs

69. In March 2015, we provided you with advice on extending the RUC exemption to include heavy EVs (OC02885 refers). We advised against extending the RUC exemption to heavy EVs because:

69.1. it would further compromise the user-pays basis of the transport system and mean that the cost burden of building and maintaining the road networks would fall on a smaller proportion of road users. This would raise equity issues, particularly among low-income road users who are less able to afford newer, more fuel-efficient vehicle technologies

69.2. it would exacerbate revenue pressures and consequently limit or delay desirable transport investment because heavy vehicles do significantly more damage to the roads, and therefore have a greater impact on road maintenance costs

69.3. the benefits of this option would be limited to operators who can reasonably adopt EV technology, thus raising further equity concerns. With the present state of EV technology, this is only an option for a small proportion of operators, such as urban buses, waste collection vehicles, and some construction vehicles.

70. Any extension of the RUC exemption to heavy EVs would require a change to the Road User Charges Act 2012, because the power to exempt electric vehicles from paying RUC is specifically limited to light EVs.

71. If the RUC exemption were extended to heavy EVs, the 80 trolley buses used in Wellington would no longer pay RUC. This is an issue given that the Greater Wellington Regional Council has already decided to phase these buses out based on existing policy settings.

72. If pursued further, we would need to consult with councils and industry to consider their views on the matter, and get a better indication of likely rates of uptake. This would inform the projected costs of the exemption. We would also suggest limiting the scope of the changes to reduce the risk of higher-than-expected revenue losses (for example, limiting introducing a RUC discount for heavy passenger EVs). This would help mitigate the risks noted above.

The proposed contestable fund and its link to EV procurement options

73. Stakeholders agree that the price differential between EVs and equivalent conventional vehicles is a key barrier to the uptake of EVs. From a business perspective, even when considered on a total cost of ownership basis the lower running costs of EVs do not offset the higher purchase price.

74. At the 12 October 2015 government-industry workshop, the joint procurement and contestable fund were proposed by business representatives as interrelated initiatives to bridge the price differential.

75. Through the joint procurement initiative, aggregated volume of demand would be leveraged to achieve lower prices. The remaining price differential would then be ‘shared’ on a like-for-like basis between the purchaser (industry or local/central government) and government via a fund established for this purpose. The expectation was that these options would work together to assist industry and government to make a better business case, based on total cost of ownership, for the purchase or lease of EVs. Further discussion of the proposed fund broadened it to a contestable fund, which could be accessed to fund other innovative projects involving EVs.
76. Under the scenario proposed by business, the fund would act in part as a subsidy (albeit on a cost sharing basis) for the purchase of EVs. We expect it would be likely to be oversubscribed. Given your earlier direction on the issue of subsidies we would need to discuss the operation of a contestable fund with you further, should you choose to progress this option.

77. The Government already provides a financial incentive or ‘tax break’ for EVs through the existing RUC exemption, which is worth around $600 per vehicle per annum until 2020. It appears the RUC exemption, which is factored into the total cost of ownership analysis, is not sufficient on its own to bridge the price differential.

78. The risk under this approach is that it could be difficult to justify an additional financial incentive purely to fund the purchase or lease of a private asset, particularly if that incentive was not available to the public at large. Another option, which could address the price differential, is a government guarantee of residual value, which would require further analysis if it was to be progressed further.

Numbers of EVs that fleets have already purchased, or have committed to purchasing

79. The Sustainable Business Council has provided the information in Table 4 about uptake of EVs by its members:

Table 4: EV uptake by some Sustainable Business Council members

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Number of EVs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air NZ</td>
<td>Subject to Request for Proposal (80 vehicles – to be confirmed)</td>
</tr>
<tr>
<td>Auckland Airport</td>
<td>1 EV</td>
</tr>
<tr>
<td>Auckland Council</td>
<td>2 EVs; 1 EV on order and a business case is being developed that could see up to 45 purchased</td>
</tr>
<tr>
<td>Contact</td>
<td>18 EV</td>
</tr>
<tr>
<td>Downer</td>
<td>5 EVs</td>
</tr>
<tr>
<td>Kapiti Coast District Council</td>
<td>1 electric rubbish truck</td>
</tr>
<tr>
<td>Mighty River Power</td>
<td>15 EVs (plan to transition 70 percent of its fleet to EVs by 2018. Its fleet size is about 100 vehicles)</td>
</tr>
<tr>
<td>NZ Post</td>
<td>14 fully electric specialist vehicles (postal delivery)</td>
</tr>
<tr>
<td>Vector</td>
<td>3 EVs</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60 EVs</strong></td>
</tr>
</tbody>
</table>

80. In addition, Wellington Electricity Lines has five EVs, Nelson-Marlborough District Health Board has one, Northpower has six, and Christchurch City Council has three (a total of 15 between them). There may be other fleets with EVs, but we are not aware of any that have a significant number (e.g. more than five).

81. Christchurch City Council is currently working with four public sector organisations to scope a shared fleet project which could potentially be a public car share scheme. Based on work to date, Christchurch City Council estimates that it would need 100 EVs if the scheme went ahead.

82. [Commercial in-confidence] Auckland Transport is currently working to finalise the details for a car share scheme using electric vehicles. The following update on progress with the scheme has been provided by AT on a highly confidential basis:
82.1. A provider has been selected and is planning to launch the scheme in May or June 2016, with 100 EVs. This is seen as a starting point, and if it goes well further EVs will be added to the scheme. The cars will be able to be used by Auckland Transport and Auckland Council staff for business and private use, as well as by members of the car share scheme. Auckland Transport is able to source the vehicles it requires but has not yet settled on a manufacturer.

Feedback from the Sustainable Business Council Advisory Board Meeting

83. At its 5 November 2015 meeting, the Sustainable Business Council Advisory Board considered the attached A3 and the targets set out in Tables 1-3 above. It:

83.1. endorsed the targets that saw annual registrations of EVs double each year to 2020 (see Table 2 above)

83.2. encouraged Government to be bold in its approach

83.3. encouraged innovative thinking on funding models, and would like to see a comprehensive contestable fund that complemented joint procurement, and assisted in bridging the cost gap between EVs and internal combustion equivalents

83.4. endorsed the collaborative approach between officials and business and are supportive of continuing this.
Recommendations

84. The recommendations are that you:

(a) note that we will provide a briefing about tax issues related to EVs on 9 November 2015 for your meeting with the Minister for Revenue

(b) note that MBIE will provide you with advice about how the Electricity Levy might be used to fund measures in the proposed EV package by 10 November 2015

(c) note the views of the Sustainable Business Council Advisory Board in paragraph 84

(d) discuss the contents of this briefing with Ministry of Transport officials at your meeting on 9 November 2015, if possible.

Senior Adviser

Withheld under section 9(2)(a) of the Official Information Act 1982

Erin Wynne
Manager, People and Environment

MINISTER’S SIGNATURE:

DATE:
The NZ Inc Electric Vehicle Package

### Shared Governance

- **Business**
  - Fleet uptake
  - Branding of vehicles
- **Central government**
  - Fleet uptake
  - Government co-funding contribution for approved projects
  - Monitor and report on effectiveness of the fund
- **Local government**
  - Fleet uptake
  - Auckland Transport and Christchurch City Council investigating electric car sharing schemes
  - Local government and government agencies shared vehicle (electrification) project in Christchurch
  - Implementation

### Contestable fund for innovative projects

- **Project proposals**
  - Establish and administer contestable fund and investment framework
  - Establish and administer contestable fund and investment framework
  - Project proposals
- **Co-funding contribution for approved projects**
  - Government co-funding contribution for approved projects
  - Co-funding contribution for approved projects
  - Co-funding contribution for approved projects
- **Implementation**
  - Monitor and report on effectiveness of the fund
  - Implementation
  - Implementation

### Information and promotion

- **Advocacy and corporate engagement to encourage electrification by other fleet owners**
  - Mighty River Power partnering with Audi, Mitsubishi, Holden, Nissan and BMW including point of sale promotional material
  - EECA information campaign
  - Local government electric vehicle groups and programmes
- **Vehicle technology knowledge hub (MoT and AT)**
- **Car companies promoting their electric vehicles**
  - Officials could also investigate potential for special electric vehicle licence plates
  - Christchurch Electric Vehicle Forum (established and chaired by Council)
- **Publicity**
  - Investigate possibility of preferential parking for electric vehicles

### Charging infrastructure

- **Consortium of organisations to establish ‘renewables highway’**
  - Lines companies installing charging infrastructure independently and in partnership with others
  - National information, guidance and promotion for public charging infrastructure
- **Clarify the regulatory framework for charging infrastructure**

### Financial incentives

- **Off-peak electricity rates for electric vehicle owners**
  - Light electric vehicles exempt from paying road user charges until 2020

In-confidence – not Government policy
Meeting with the Minister of Revenue on potential tax issues with electric and hybrid vehicles

| Reason for this briefing                                      | You will be meeting with the Minister of Revenue on Tuesday 10 November 2015 at 12.30pm to discuss fringe benefit tax and tax depreciation rates for electric and hybrid vehicles. This briefing provides background information for your meeting with the Minister. |
| Action required                                              | Consider this briefing prior to your meeting with the Minister of Revenue on 10 November 2015. |
| Deadline                                                    | Monday 9 November 2015 |
| Reason for deadline                                         | This deadline will enable you to consider this briefing before your meeting with the Minister of Revenue on 10 November 2015. |

Contact for telephone discussion (if required)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone Direct line</th>
<th>Telephone After hours</th>
<th>First contact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Principal Adviser</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erin Wynne</td>
<td>Manager, People and Environment</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 9 November 2015

Briefing number: QC03562

Attention: Hon Simon Bridges (Minister of Transport)

Security level: In-Confidence

Minister of Transport’s office actions

☐ Noted
☐ Needs change
☐ Withdrawn
☐ Seen
☐ Referred to
☐ Not seen by Minister
☐ Approved
☐ Overtaken by events
Purpose of report

1. This briefing provides background information for your meeting with Hon Todd McClay, the Minister of Revenue, on the issues of fringe benefit tax and tax depreciation rates for electric and hybrid vehicles (EVs). The meeting is scheduled for Tuesday 10 November 2015 at 12.30pm.

Fringe benefit tax on EVs

2. Fringe benefit tax is a tax on non-cash benefits that are provided in connection with employment, such as the use of a company car. The tax is the non-cash benefit equivalent of PAYE tax that is applied to salaries and wages.

3. The purpose of fringe benefit tax is to ensure that all forms of remuneration are taxed equally. The tax is intended to leave an employee neutral between receiving a fringe benefit and receiving the equivalent monetary remuneration.

4. The most common type of employment-related fringe benefit is the private use of a company motor vehicle. For an employee, there is significant value in having a company car available for their private use. In monetary terms this value is the fixed and running costs that they would bear if they owned the car.

Why could fringe benefit tax be an issue for EVs?

5. Due to the way fringe benefit tax is calculated EVs attract a higher amount of tax. This is because their purchase prices are higher than those of equivalent conventional vehicles.

6. For the purposes of fringe benefit tax, the annual taxable value of an employee’s vehicle benefit is calculated as either 20 percent of a vehicle’s cost price, or 36 percent of its book value. These proportions are proxy estimates of the fixed and running costs that the employee would bear if they owned the car themselves. Fringe benefit tax applies to these estimates.

7. The tax regime assumes that these proxy estimates correctly value the fringe benefit of an EV. However, the fixed and running costs of EVs differ from conventional vehicles. The purchase price of EVs is higher, but the running costs tend to be lower than for conventional vehicles. By using the same proportion of cost price, or book value, the proxy estimate ignores these differences.

8. This means that potentially the fringe benefit tax calculation is overvaluing the fringe benefit of EVs and the vehicle owners are paying too much tax.

9. Although we expect the purchase prices of EVs to fall over time, it is unlikely that they will fall below those of conventional vehicles. So this potential for EV owners to be overtaxed is likely to continue into the future.

10. Being overtaxed could in turn distort vehicle choices away from EVs. This result would be inconsistent with New Zealand’s tax policy settings, which are designed to deliver a neutral tax system.

11. Little is known about the extent to which fleet purchase decisions are being influenced by fringe benefit tax. In our view, it is more likely that other barriers, such as the higher purchase price, are playing a far greater role in company decisions not to purchase EVs for
their fleets. Also, not all fleet vehicles are subject to fringe benefit tax as often vehicles are used solely for work purposes.

12. Nevertheless, the potential for the tax regime to overvalue the fringe benefit of EVs could be an issue that adds to the barriers that are limiting the appeal of EVs to businesses.

The tax calculation used to value the fringe benefit of EVs could be reviewed

13. In our view there would be merit in addressing this potential tax issue. Discussions with tax officials suggest that the best way to do this would be to review the basis for calculating the taxable value of the fringe benefit for EVs. The point of the review would be to ensure that the lower running costs of these vehicles are adequately recognised in the tax calculation.

14. In this way, a review would remove any perception that the fringe benefit tax regime is influencing companies to favour conventional vehicles. It would also strengthen the existing policy settings of the fringe benefit tax regime.

15. Tax officials have said that this review would have to be prioritised against other items on the Government’s tax policy work programme.

16. An alternative to a review would be to exempt EVs from fringe benefit tax. We do not support this option as it would:

16.1. be inconsistent with New Zealand’s broad based tax system, which ensures all earnings and non-cash benefits across the economy are taxable

16.2. compromise the fairness of the tax system by affording a tax advantage to those companies and employees where an EV company car is made available for private use

16.3. be inconsistent with the Government’s revenue strategy which generally avoids tax concessions. Instead, it advocates that if the Government wishes to encourage a particular economic activity, then it should do so in a transparent way through direct funding rather than through the tax system.

17. Moreover, the current road user charges (RUC) exemption already provides a financial concession to encourage the purchase of EVs. Someone purchasing an EV today will benefit from a subsidy that is worth around $2,800\(^1\).

Tax depreciation rates for EVs

18. Currently EVs are depreciated for tax purposes at the same rate as conventional vehicles. The depreciation rates are either 30 percent (diminishing value), or 21 percent (straight line).

Why could the depreciation rates be an issue for EVs?

19. Some stakeholders have suggested having a higher, or accelerated, tax depreciation rate for EVs. This is because fleet buyers perceive that the total cost of ownership over a 5-year period will be higher for EVs than for fuel efficient conventional vehicles. They suggest that EVs can be expected to have a higher depreciation rate than is currently allowed for income tax purposes.

\(^1\) This is based on the existing RUC rate of $62 per 1,000 kilometres (GST inclusive) and an average distance travelled of 10,000 kilometres. It reflects existing policy that the RUC exemption will end on 30 June 2020.
20. The evidence we have that EVs are depreciating at a faster rate comes from companies that calculate residual vehicle values. These companies are making lower estimates for EVs than for similar conventional vehicles. This is the case even though the original purchase prices of the EVs are higher. The lower estimates reflect the uncertainty around the rate at which EVs will depreciate as they are new to the market.

21. If tax depreciation rates are too low, then this can act as a further disincentive to fleet buyers by increasing their fleet vehicle costs. This is because EV owners would not be receiving the correct amount of depreciation deductions over the period that the vehicle is used by the business. This can result in over taxation of annual income.

22. However, the concern identified by these stakeholders is a question about the timing and value of depreciation deductions rather than a permanent tax effect. When a vehicle is disposed of, the Income Tax Act 2007 requires a wash-up to calculate if the relevant tax depreciation rate has correctly spread the cost of the vehicle over its economic life.

23. If a vehicle is disposed of at a value lower than its tax book value, then the company effectively receives a tax credit to account for that loss. If a vehicle is sold for more than its tax book value, the company effectively is credited with an amount of taxable income.

There would be merit in looking at whether the standard depreciation rates are appropriate for EVs

24. Nevertheless, the policy principle behind depreciation is that deductions should broadly match an asset's expected decline in value. If EVs are expected to depreciate differently to conventional vehicles, there is merit in investigating whether EVs warrant an alternative tax depreciation rate.

25. For simplicity the tax system applies average rates of depreciation across all cars. Average rates bring the risk that there will be ‘winners and losers’ in terms of tax liability in the early years of owning a company vehicle. However, the early years matter here because businesses tend to turn vehicles over every four years.

26. In a policy environment where we are trying to encourage businesses to purchase EVs, it would be desirable if the tax system helped to provide certainty. This would happen if businesses who purchase EVs could deduct depreciation in line with a vehicle’s expected decline in value. Where this happens, the Crown would not inadvertently be benefiting from the market uncertainty around the rate at which EVs decline in value through use and time.

27. Tax policy officials advise that there is an existing process that can be used to review the depreciation rates. This is for the relevant companies to ask the Commissioner of Inland Revenue to review the case for having different depreciation rates for EVs. If such a review occurred, the companies would be expected to prepare an economic case and support their arguments for a different rate of depreciation.

28. You could prompt such a review by inviting relevant industry participants, for example the Sustainable Business Council and Mighty River Power, to make a request to the Commissioner of Inland Revenue.

Views of stakeholders

29. Earlier this year, stakeholders advocated using the tax system to encourage the purchase of EVs. Specifically, the Sustainable Business Council expressed the view that removing fringe benefit tax, or offering a ‘tax holiday’, would contribute substantially to the business case for EVs. A copy of the memo that the Sustainable Business Council gave you in January 2015 is attached.
30. Similarly, Mighty River Power and Zero Emission Vehicles Limited suggested that government could consider having accelerated depreciation rates for EVs.

31. These tax issues were discussed at a 12 October 2015 meeting that was held with the Sustainable Business Council and local and central government officials, including officials from Inland Revenue. Following the discussion, stakeholders appeared to understand the high thresholds involved in attempting to change the tax system to advantage EVs.

32. The 12 October 2015 meeting went on to workshop other solutions to encourage the uptake of EVs. As we have advised you, this discussion resulted in the three elements of the proposed EVs government-industry package. These elements are: enabling bulk procurement, having a contestable fund, and providing coordination initiatives, such as, an information and promotion campaign.

The key risk with the reviews is that they may generate results that stakeholders do not want

33. The key risk with doing the reviews is that the results may not benefit the stakeholders who have advocated for tax reform. In particular, higher depreciation rates could have a knock-on effect for fringe benefit tax. Higher depreciation rates imply that an employee would be getting the benefit of a vehicle that has greater costs. Therefore, the value of the vehicle benefit would be higher. This suggests that a higher amount of fringe benefit tax should apply on the private use of these vehicles.

34. This risk would be mitigated by giving stakeholders the choice as to whether or not they wish to pursue a review. The interrelationship between depreciation rates and fringe benefit tax was explained to stakeholders at the meeting of 12 October 2015.

Suggested talking points to raise with the Minister of Revenue

35. We suggest that you raise the following points with the Minister of Revenue:

35.1. There is the potential that the fringe benefit tax regime could be overvaluing, and thus overtaxing, the fringe benefit of EVs. This is because the regime assumes that the estimates that work for conventional vehicles, correctly value the fringe benefit of EVs. However, while the purchase prices may be higher, EVs can have lower running costs than conventional vehicles.

35.2. A review could be done on the basis for calculating the value of the fringe benefit of EVs. The point of the review would be to ensure that the lower running costs of EVs are adequately recognised in the tax calculation.

35.3. The standard tax depreciation rates for motor vehicles may not be appropriate for EVs. This is because the market seems to be depreciating EVs at a faster rate than for conventional vehicles.

35.4. Companies could perceive the standard depreciation rates as an additional reason not to purchase EVs for their fleets. If they did, they would not be able to deduct the tax on the additional cost of an EV’s depreciation from their annual taxable earnings prior to the vehicle being disposed of.

35.5. There could be merit in the Commissioner of Inland Revenue reviewing the tax depreciation rates for EVs.
Recommendations

36. The recommendations are that you:

(a) note the background material in this briefing to assist you in your meeting with the Minister of Revenue on Tuesday 10 November 2015 at 12.30pm

(b) note our advice that you raise with the Minister of Revenue the possibility of Inland Revenue conducting a review of the:

1. basis for calculating the value of the fringe benefit of EVs
2. tax depreciation rates for EVs.

Withheld under section 9(2)(a) of the Official Information Act 1982

Principal Adviser

MINISTER'S SIGNATURE:

DATE:
**ELECTRIC VEHICLES AND ROAD USER CHARGES – ADDITIONAL INFORMATION**

<table>
<thead>
<tr>
<th>Reason for this briefing</th>
<th>To provide you with information on the cost of extending the current road user charges (RUC) exemption for electric vehicles out to 2025 for light vehicles, and the cost if a RUC exemption was applied to electric heavy vehicles.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action required</td>
<td>Consider the attached information.</td>
</tr>
<tr>
<td>Deadline</td>
<td>Tuesday 10 November 2015.</td>
</tr>
<tr>
<td>Reason for deadline</td>
<td>To inform the discussion at your meeting with senior Ministers on 11 November 2015.</td>
</tr>
</tbody>
</table>

**Contact for telephone discussion (if required)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Direct line</th>
<th>After hours</th>
<th>First contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Redacted)</td>
<td>Senior Adviser</td>
<td></td>
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<tr>
<td>Erin Wynne</td>
<td>Manager, People and Environment</td>
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**Minister’s Comments:** Withheld under section 9(2)(a) of the Official Information Act 1982

<table>
<thead>
<tr>
<th>Date:</th>
<th>10 November 2015</th>
<th>Briefing number:</th>
<th>OC03577</th>
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<tr>
<td>Attention:</td>
<td>Hon Simon Bridges (Minister of Transport)</td>
<td>Security level:</td>
<td>In-Confidence</td>
</tr>
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</table>

**Minister of Transport’s office actions**

- [ ] Noted
- [ ] Seen
- [ ] Approved
- [ ] Needs change
- [ ] Referred to
- [ ] Not seen by Minister
- [ ] Overtaken by events
Purpose of report
1. To provide you with information on the cost of extending the current road user charges (RUC) exemption for electric vehicles out to 2025 for light vehicles, and the cost if a RUC exemption was applied to electric heavy vehicles.

Background
2. The Ministry for Transport (the Ministry) has previously provided you with advice on the possible impact of extending the RUC exemption for electric vehicles (EVs) as part of the package for your consideration.
3. You met with officials on Monday 9 November 2015 and discussed EVs, specifically requesting information on the cost of extending the RUC exemption to 2025 for light vehicles. You also asked for information on the cost of a similar RUC exemption being applied to heavy vehicles.

The cost of extending the existing RUC exemption to 2025
4. As per your request, modelling to calculate the costs of extending RUC to 2025 for EVs has been completed.
5. The table below shows the foregone revenue if the current EV RUC exemption were to be extended to 2025 for light vehicles.

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative EV sales (new and used imports)</td>
<td>528</td>
<td>49,086</td>
<td>230,468</td>
</tr>
<tr>
<td>Foregone annual RUC $m</td>
<td>0.294</td>
<td>27.390</td>
<td>128.601</td>
</tr>
<tr>
<td>Foregone cumulative RUC $m</td>
<td>0.294</td>
<td>52.758</td>
<td>462.084</td>
</tr>
</tbody>
</table>

6. The Ministry is having the above numbers independently reviewed by Infometrics. However, this could not be completed for this briefing. We will advise you if there are any changes as a result of that review.

Limiting RUC to a five-year period for new vehicles
7. We also calculated the foregone revenue if a RUC exemption was applied to new vehicles for a five-year period. This has a cascading effect as each new year comes into the calculation and after five years the exemption would cease for the initial EVs. This option would require legislative change.
8. This five-year period calculation is based on the modelling for the existing RUC exemption that is due to expire in 2020 for light vehicles.
9. The following table shows the foregone revenue of a five-year exemption for new light vehicles:

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative EV sales (new and used imports)</td>
<td>528</td>
<td>43,000</td>
<td>202,000</td>
</tr>
<tr>
<td>Foregone annual RUC based on 5 year exemption (excludes used imports) $m</td>
<td>0.248</td>
<td>12.6</td>
<td>69.5</td>
</tr>
<tr>
<td>Foregone accumulated RUC (excludes used imports) $m</td>
<td>0.248</td>
<td>22.1</td>
<td>246.0</td>
</tr>
</tbody>
</table>

Application of a RUC exemption for electric heavy vehicles

10. There are currently 57 electric trolley buses operating on Wellington roads\(^1\). These vehicles account for about two percent of all distance travelled by 3-axle buses. If electric trolley buses were exempt from RUC the estimated revenue foregone would be about $350,000 per annum.

11. For other heavy vehicle types, we do not have reliable data to estimate the number of heavy electric or hybrid vehicles. We believe this number is very small.

12. Based on current levels of RUC revenue, a one percent uptake of electric vehicles across the heavy vehicle fleet would result in revenue loss of about $13 million per annum.

13. We have been able to estimate the level of revenue loss for a handful of different RUC vehicle types assuming one percent of relevant vehicles are electric powered.

14. There are approximately 150,000 heavy vehicles in our fleet. These consist of a mix of different types and sizes of vehicles with some being powered and others unpowered (i.e. trailers).

15. The table below shows figures for some of the major heavy vehicle classes and the estimated annual revenue loss if a RUC exemption was applied:

<table>
<thead>
<tr>
<th>RUC vehicle type</th>
<th>Weight bands</th>
<th>Estimated revenue loss at 1 percent of electric heavy vehicles per annum - $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 311 - Powered passenger service vehicles with three axles</td>
<td>Not more than 6 tonnes</td>
<td>0.350</td>
</tr>
<tr>
<td></td>
<td>More than 6 tonnes and</td>
<td>0.278</td>
</tr>
<tr>
<td>Type 2 - Powered vehicles with one single-tyred spaced axle and one twin-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Greater Wellington Regional Council will be retiring the trolley buses from 2017.
<table>
<thead>
<tr>
<th>Tyre Spacing</th>
<th>Weight Range</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spaced</td>
<td>not more than 9 tonnes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>More than 9 tonnes and not more than 12 tonnes</td>
<td>0.268</td>
</tr>
<tr>
<td>Type 6</td>
<td>More than 18 tonnes</td>
<td>2.000</td>
</tr>
<tr>
<td>Powered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 14</td>
<td>All RUC weights</td>
<td>1.800</td>
</tr>
<tr>
<td>Powered</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Withheld under section 9(2)(a) of the Official Information Act 1982

Erin Wynne
Manager, People and Environment

MINISTER’S SIGNATURE:

DATE:
ELECTRIC VEHICLES PACKAGE: DRAFT CABINET PAPER

Reason for this briefing: To provide you with the attached draft Cabinet paper which seeks agreement to the electric vehicle package that we discussed with you on 12 November 2015, and to seek feedback that will enable us to finalise the paper.

Action required: Note the contents of this briefing, clarify your direction on the threshold for the road user charges exemptions for light and heavy electric vehicles, and provide comment to officials.

Separate advice on levy options will be provided by the Ministry of Business, Innovation and Employment before the end of the year.

Deadline: At your earliest convenience.

Reason for deadline: N/A

Contact for telephone discussion (if required)

<table>
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<td>Manager, People and</td>
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<td>Environment</td>
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MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 7 December 2015

Briefing number: OC03083

Attention: Hon Simon Bridges (Minister of Transport)

Security level: In-Confidence

Minister of Transport’s office actions

☐ Noted

☐ Needs change

☐ Withdrawn

☐ Seen

☐ Referred to

☐ Not seen by Minister

☐ Approved

☐ Overtaken by events
Purpose of briefing

1. Attached is a draft Cabinet paper, which seeks agreement to the electric vehicles (EVs) package we discussed with you on 12 November 2015.

2. This briefing summarises the decisions sought by the Cabinet paper, and highlights the following matters on which you may wish to provide further direction prior to the paper being finalised:

   2.1. the timing of an EV Bill and the interim arrangements for implementing key initiatives within the EV package

   2.2. the thresholds for the road user charges (RUC) exemptions for light and heavy EVs

   2.3. the source of funding for the contestable fund (the Ministry of Business, Innovation and Employment (MBIE) will provide you with further advice on this issue separately)

   2.4. the reviews of the tax depreciation rate and fringe benefit tax on EVs

   2.5. proposed next steps, including formal departmental consultation.

Decisions sought by the paper

3. Based on our meeting with you of 12 November 2015, the draft Cabinet paper seeks agreement:

   3.1. for the Energy Efficiency and Conservation Authority (EECA) to reprioritise $1 million per year for five years to an EV information campaign that focuses on fleet buyers and industry coordination, with some general public communication

   3.2. to establish a contestable fund of $6 million per annum for five years to co-fund industry and government initiatives

   3.3. to amend the Electricity Industry Act 2010 so that the electricity levy can be used for the contestable fund

   3.4. to direct MBIE to investigate the feasibility of joint public and private sector fleet procurement

   3.5. to direct EECA and MBIE to conduct an EV demonstration across the government fleets, initially involving 24 vehicles and that the estimated cost of $500,000 be funded from the contestable fund

   3.6. to support government procurement of EVs with a ‘kickstarter’ of $1 million, funded from the contestable fund, for government agencies to cover the cost differential between a conventional vehicle and an EV

   3.7. that the EVs package include the target of EVs making up two percent of the vehicle fleet by the end of 2021
3.8. for the NZ Transport Agency to (without changing the current investment settings in the Government Policy Statement on land transport 2015/16 – 2024/25) undertake a range of activities to support EVs and associated charging infrastructure

3.9. extending the RUC exemption to electric heavy vehicles and that the exemptions for the light and heavy vehicle fleets apply until two percent of each fleet are electric

3.10. to direct the Inland Revenue Department (IRD) to review the depreciation rate and the method used to calculate fringe benefit tax as they relate to EVs

3.11. to direct the NZ Transport Agency to review the classification of plug-in hybrid electric vehicles (PHEVs) as part of a wider review of the vehicle licensing classification system, to address an issue with the payment of ACC levies by PHEV owners

3.12. that central government convene a group to provide ongoing leadership and coordination for the total government-industry package.

4. The total value of the package is $27.3 million over 4 years in terms of new funding. The value of the RUC exemption for light EVs is about $600 per vehicle per year, assuming current RUC rates. The value of a RUC exemption for heavy EVs would depend on what RUC vehicle type an EV is. Some examples are below.

<table>
<thead>
<tr>
<th>RUC vehicle type</th>
<th>Annual value of RUC exemption per vehicle per year if electric (assuming current RUC rates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trolley bus, like those used in Wellington</td>
<td>$6,140</td>
</tr>
<tr>
<td>Medium sized 2-axle delivery truck</td>
<td>$2,840</td>
</tr>
<tr>
<td>2-axle rubbish truck</td>
<td>$5,560</td>
</tr>
</tbody>
</table>

Legislative change and impact on implementation of EV package

5. Legislation is needed to enable a levy to cover the costs of the contestable fund, and to exempt heavy EVs from RUC. As discussed with you, it is envisaged that the legislative changes will be progressed through an EV Bill. An EV Bill is not currently on the legislative programme for 2016, but we will work with MBIE to submit a bid to be included on the 2016 programme.

6. In our view, the amendments would be technically easy to secure, and should not absorb much of the House’s time. However, we estimate it could take about 12-18 months for an EV Bill and associated regulations to come into force. The Cabinet paper is currently silent about the timing of an EV Bill and its impact on agencies’ ability to deliver the EV package.

7. If we wait until the legislation is in place, the contestable fund will not be available until 2017 at the earliest. This would also delay measures to assist EV uptake by government fleets.
8. We instead propose that funding for 2016/17 be met from EECA reserves and reprioritisation to enable the fund to be available sooner. Arrangements to fund the contestable fund through a levy would need to be in place during the 2017/18 year. Appendix 1 summarises how agencies propose to implement the EV package.

Clarifying the RUC exemption thresholds for light and heavy electric vehicles

9. At our 12 November meeting, we discussed extending the RUC exemption:

9.1. to electric heavy vehicles

9.2. until EVs make up two percent of the fleet or 2025 – whichever comes first.

10. We would like to clarify the thresholds that apply to the RUC exemptions for light and heavy EVs. Based on our 12 November conversation, there are three ways in which the thresholds for the RUC exemptions could apply.

11. The attached draft Cabinet paper proposes to extend the RUC exemption to electric heavy vehicles and that the exemptions for the light and heavy EV fleets apply until two percent of each fleet, respectively, are electric.

12. Based on our modelling and the proposed EV uptake targets, we expect two percent of the light vehicle fleet to be electric by the end of 2021. The two percent threshold for the light vehicle fleet equates to an estimated maximum loss of foregone revenue of around $39.7 million per year once the threshold is reached.

13. We cannot estimate when two percent of the heavy vehicle fleet is likely to be electric because of the limited data available on heavy EV uptake. The draft Cabinet paper is therefore silent on exactly how long the RUC exemption for heavy EVs would apply. This means we cannot say what the estimated value of foregone revenue would be once two percent of the heavy vehicle fleet is electric. Instead, we have estimated the maximum annual foregone revenue if the two percent threshold is met in 2025 ($24 million) or in 2030 ($29 million).¹

Alternative options for setting thresholds for the RUC exemptions

14. Another option would be to seek agreement to extend the RUC exemption to electric heavy vehicles and that the exemptions for the light and heavy EV fleets apply until two percent of the total fleet is reached. Under this option, the exemption for both light and heavy EVs would apply until the end of 2021. We estimate that a two percent threshold for the total vehicle fleet equates to an estimated loss of foregone revenue of around $40 million once the threshold is reached.

¹ The estimated foregone revenue increases because projected RUC revenue increases each year.
15. Alternatively, the RUC exemption for light EVs could apply until the end of 2021 (by which time they are expected to make up two percent of the light vehicle fleet), and the exemption for heavy EVs could apply until 2025 (consistent with the end date discussed with you on 12 November). The threshold for the light vehicle fleet equates to an estimated maximum loss of foregone revenue of around $39.7 million per year once the threshold is reached. We cannot estimate what a 2025 threshold for the heavy vehicle fleet equates to in terms of foregone revenue, but it would be very unlikely to exceed $24 million.

16. The current recommendations in the draft Cabinet paper do not preclude adopting this approach following work on the design of the legislative amendment and subsequent regulations. However, if this is the approach to the threshold that you wish to adopt, the Cabinet paper could be more explicit.

*We consider that the thresholds in the draft Cabinet paper are acceptable.*

17. We have not fully assessed the benefits and risks of each of the options set out above. The key issue is whether the Government accepts the estimated loss of foregone revenue under each option.

18. One risk of the option in paragraph 14 is that it may not incentivise any significant penetration of heavy EVs in the New Zealand market because current technical constraints mean that heavy EVs will be limited in their applications for the next decade.

19. The fact that we do not have a sound basis for estimating when heavy EVs are likely to make up two percent of the heavy vehicle fleet is also a risk.\(^2\) We consider that this risk can be managed following work on the design of the legislative amendment and subsequent regulations.

**MBIE would like to consider a range of options for funding the contestable fund**

20. As we discussed with you, the Cabinet paper currently seeks agreement to amend the Electricity Industry Act 2010 so that the levy on electricity industry participants can be used for the contestable fund (it can currently only be used to fund electricity efficiency measures).

21. In MBIE's view, it is prudent to consider other options as another levy may be more appropriate. MBIE considers that this, and potentially wider levy changes, are warranted given changing environmental and energy priorities, which require a greater focus on transport energy.

22. Other levies that could be expanded are the levies on:

22.1. electricity generators and gas suppliers (primarily used for safety regulation)

22.2. petrol/diesel consumers (used for specified activities relating to engine fuels).

\(^2\) We could attempt to develop a model for heavy EV uptake. The results would be highly speculative because the future price and supply of heavy EVs is subject to even greater uncertainty than that for light EVs.
24. We understand that you have had initial discussions with MBIE about this matter, and that you have sought further advice on options and timing by the end of 2015. Any decisions you make following that advice will be reflected in the draft Cabinet paper.

IRD suggests reviewing both tax deprecation rates and fringe benefit tax on EVs

25. At our meeting of 12 November, you directed us to include in the draft Cabinet paper a mandate for IRD to undertake a review of either the tax deprecation rate for EVs, or the method for calculating fringe benefit tax on EVs. You also asked whether IRD could model the potential impacts of amending the tax regime on EV costs.

26. IRD does not currently have sufficient information to say which tax may be acting as a larger disincentive to EV uptake or model these impacts. IRD suggests undertaking both reviews to quantify any potential disincentive that the existing tax regime creates for the purchase of EVs. Initial information from the reviews would help inform which (if any) of the reviews should be completed with a view to amending whichever tax disincentivises EV uptake the most.

Next steps for seeking decisions on the EV package

Proposed timeline

27. We understand that the first meeting of the Economic Growth and Infrastructure Committee (EGI) is likely to be 10 February 2016. Below is the indicative timeline if you would like the EV package considered by EGI on 10 February.

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week of 7 December 2015</td>
<td>Draft Cabinet paper to your office</td>
</tr>
<tr>
<td>Prior to Christmas 2015</td>
<td>Receive any comment from you on the draft Cabinet paper</td>
</tr>
<tr>
<td>Week of 11 January 2016</td>
<td>Formal departmental consultation</td>
</tr>
<tr>
<td>No later than Tuesday 26 January 2016</td>
<td>Final Cabinet paper and Regulatory Impact Statement(s) to your office</td>
</tr>
<tr>
<td>Thursday 4 February 2016</td>
<td>Lodge paper with Cabinet Office</td>
</tr>
<tr>
<td>Wednesday 10 February</td>
<td>EGI considers EV package</td>
</tr>
<tr>
<td>Monday 15 February</td>
<td>Cabinet considers EV package</td>
</tr>
</tbody>
</table>

Departmental consultation

28. We have only consulted EECA and MBIE’s Energy Markets Policy team on the draft Cabinet paper. We have not yet consulted the NZ Transport Agency on the draft Cabinet paper. The information in the draft Cabinet paper is based on our engagement with the NZ Transport Agency during the development of the EV package.

29. We will need to undertake formal consultation prior to finalising the paper. We would like your agreement to formally consult the following agencies: the Treasury, the Department of Prime Minister and Cabinet, the NZ Transport Agency, MBIE’s Government Procurement teams, IRD, the Department of Internal Affairs, the Ministry for the Environment, and the Ministry of Foreign Affairs and Trade.
Regulatory Impact Analysis (RIA) requirements

30. In order to meet RIA requirements, the final Cabinet paper needs to be accompanied by a Regulatory Impact Statement (RIS) for the proposed amendments to the RUC exemptions for EVs. We have prepared a first draft of the RIS, which will undergo internal quality assurance before being submitted to your office.

31. MBIE do not consider that a RIS is required at this stage for the proposal to amend an existing levy so that it can be used for the contestable fund. We will test this with Treasury’s RIA team in due course to ensure that the EV papers that are considered by Cabinet comply with the relevant requirements.

Recommendations

32. The recommendations are that you:

(a) note the proposed arrangements for implementing the EV package set out in Appendix 1
(b) note that there are three options for framing the thresholds for the RUC exemptions within the Cabinet paper
(c) agree that the draft Cabinet paper includes thresholds that would see the exemptions for the light and heavy EV fleets applying until two percent of each fleet, respectively, are electric
(d) note that IRD recommends the EV package include a mandate for it to review both the depreciation rate for EVs and the method for calculating fringe benefit tax for EVs
(e) provide officials with any comment that you have on the draft Cabinet paper before the end of 2015
(f) agree for the Ministry of Transport to undertake formal departmental consultation with the agencies listed in paragraph 29
(g) note that we plan to provide you with a final Cabinet paper by 26 January 2016

Senior Adviser

Erin Wynne
Manager, People and Environment

Withheld under section 9(2)(a) of the Official Information Act 1982

MINISTER’S SIGNATURE:

DATE: 21 Jan 2016
## Appendix 1: Summary of EV package implementation

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Info campaign</strong></td>
<td>Being established – already reprioritised from energy appropriation.</td>
<td>$1 million from EECA retained earnings and/or reprioritisation of energy appropriation.</td>
<td>$1 million per annum reprioritised from energy appropriation and/or electricity levy.</td>
<td></td>
<td></td>
<td>EECA to design and implement with oversight from MBIE.</td>
</tr>
<tr>
<td><strong>Contestable fund</strong></td>
<td>Being established – funding reprioritised from baseline.</td>
<td>Estimated $5.3 million from EECA retained earnings and reprioritisation of energy appropriation.</td>
<td>$6 million per annum from electricity levy.</td>
<td></td>
<td></td>
<td>EECA to administer with oversight from MBIE. Ministers of Transport, Energy and Resources, and Economic Development to approve funding framework.</td>
</tr>
<tr>
<td><strong>Public-private procurement</strong></td>
<td>Being investigated – funding from MoT/MBIE.</td>
<td>To be confirmed. If feasible, tender process could take 6-12 months. Funding from contestable fund.</td>
<td>Costs to be determined as part of feasibility investigation. Funding from contestable fund.</td>
<td></td>
<td></td>
<td>MBIE procurement to investigate. Feasibility study will recommend which agency to implement, if applicable.</td>
</tr>
<tr>
<td><strong>Demonstration</strong></td>
<td>Being set up – funding from agencies’ baselines.</td>
<td>Trial may be initiated in second half of year. Up to $500,000 from contestable fund.</td>
<td>Monitoring and reporting being carried out. Currently estimated at $60,000 per year. Funding from contestable fund. Potential to be scaled up.</td>
<td></td>
<td></td>
<td>EECA to implement with relevant assistance from MBIE procurement.</td>
</tr>
<tr>
<td><strong>Kickstarter</strong></td>
<td>Being set up – funding from agencies’ baselines.</td>
<td>Up to $1 million per annum from contestable fund.</td>
<td></td>
<td></td>
<td></td>
<td>EECA to administer with relevant assistance from MBIE procurement.</td>
</tr>
</tbody>
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Electric vehicles package: final Cabinet paper

Reason for this briefing
To provide you with the final Cabinet paper seeking agreement to an electric vehicle package, and inform you of the substantive feedback from departmental consultation. In particular it discusses the diverging views of Treasury on two key points. Announcement options for the agreed package are also set out in Appendix 2.

Action required
Consult relevant Ministers about this Cabinet paper.
Lodge the Cabinet paper by 25 February 2016.
Discuss Treasury’s comments and announcement options with officials on 22 February 2016.

Deadline
22 February 2016

Reason for deadline
We would like to discuss the electric vehicles package with you at our meeting of 22 February 2016, particularly the remaining issues raised by Treasury in its agency comment and recommendations.

Contact for telephone discussion (if required)

<table>
<thead>
<tr>
<th>Name</th>
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MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 17 February 2016  Briefing number: OC03725
Attention: Hon Simon Bridges  Security level: In-Confidence

Minister of Transport’s office actions
☐ Noted  ☐ Seen  ☐ Approved
☐ Needs change  ☐ Referred to
☐ Withdrawn  ☐ Not seen by Minister  ☐ Overtaken by events
Purpose of report

1. This report:

1.1. summarises key issues raised in departmental consultation, and in particular those of the Treasury, and how these have been addressed in the final Cabinet paper seeking agreement to a proposed electric vehicles package

1.2. sets out announcement options for the agreed package.

2. The final Cabinet paper incorporates the changes requested by your office on 2 February 2016.

Key concerns raised in departmental feedback

3. We discussed departmental feedback with you on 15 February 2016. All of the substantive issues have now been resolved to the satisfaction of departments, with the exception of the Treasury. Appendix 1 sets out the issues raised by the other departments and how they have been addressed.

4. We have had a series of discussions with Treasury and have now resolved many of the issues that it raised about the draft Cabinet paper. However, Treasury still has concerns about two key aspects of the paper. These are that Treasury:

4.1. does not support extending the road user charge exemptions for electric vehicles

4.2. does not consider sufficient analysis has been presented to justify establishing the contestable fund.

5. These concerns have been reflected in Treasury’s separate departmental comment and recommendations in the paper.

6. In response to Treasury’s comments we note that the exemption for light electric vehicles from road user charges is already in place and has already been approved by Cabinet twice, so is not new policy and the same concerns were considered on those previous occasions. We appreciate it cannot be possible to know in advance exactly when the target will be reached, but, as drafted, the exemption is clearly time limited (i.e. it ceases on a specified date that is set well in advance).

7. The contestable fund was developed jointly with stakeholders as one of the options to promote uptake, similar to the Urban Cycleway Programme.

8. We would like to discuss these matters with you at our meeting of 22 February 2016.

9. A number of departments, as well as Treasury, expressed general concerns with how the various components of the proposed contestable fund would work in practice. We consider these issues should be able to be addressed in the May 2016 report back on funding options for the contestable fund.

10. We did not receive any comment from the Department of Prime Minister and Cabinet (DPMC). We did not submit the Cabinet paper for consideration by the Official’s Economic Growth and Infrastructure Committee on the recommendation of DPMC.
Next steps

11. We recommend that you consult the relevant Ministers about the Cabinet paper prior to lodging. In particular, the Ministers of for Finance, Economic Development (responsible for government procurement) Climate Change Issues and Revenue would need to be consulted on aspects of the Cabinet paper.

12. Appendix 2 sets out announcement options that you may wish to consider. We would welcome the opportunity to discuss these options with you at our meeting of 22 February 2016.

13. The Cabinet paper needs to be lodged by 25 February 2016 in order to be considered by the Economic Growth and Infrastructure Committee’s (EGI) meeting of 2 March 2016. This is the earliest that the paper could be considered. The next meeting of EGI is scheduled for 9 March 2016.

Recommendations

14. The recommendations are that you:

(a) consult the relevant Ministers about the attached electric vehicle Cabinet paper prior to lodging the paper

(b) discuss with officials the remaining issues of concern to Treasury

(c) discuss the announcement options set out in Appendix 2 with us at our meeting of 22 February 2016

(d) lodge the attached Cabinet paper by 25 February 2016 so that it can be considered at the meeting of the Economic Growth and Infrastructure Committee on 2 March 2016

Senior Adviser

Withheld under section 9(2)(a) of the Official Information Act 1982

MINISTER’S SIGNATURE:

DATE: 20/2/16
## Appendix 1: Key issues raised by agencies and consequent changes to the Cabinet paper

<table>
<thead>
<tr>
<th>Department</th>
<th>Comments</th>
<th>How comments are addressed in the Cabinet paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury (Additional issues)</td>
<td>The paper does not make a clear case for development of a levy, as opposed to using any other funding options. Treasury would like Cabinet only to agree to further analysis of a levy as a possible funding option. The paper does not explain the specific financial implications of various initiatives on the Crown and government departments. The paper does not provide sufficient justification as to why to subsidise only electric vehicles (EVs), which is not technology neutral.</td>
<td>The paper now says that there will be a report back in May 2015 on levy options for funding the contestable fund, and other options. This report back will also provide advice on the impacts of all direct and indirect subsidies in the EVs package, including the split between capital and operating expenditure where appropriate. The paper now explicitly indicates that the contestable fund could be used to support other low emissions vehicle technologies in future. Separate Treasury comment and recommendations are also included.</td>
</tr>
<tr>
<td>Energy Efficiency and Conservation Authority</td>
<td>In the absence of the exemption, EVs paying road user charges (RUC) would always be taxed more than efficient petrol vehicles, discouraging their uptake after the exemption is removed.</td>
<td>A new section (see paragraph 79 of Cabinet paper) has been inserted to highlight this issue.</td>
</tr>
<tr>
<td>Ministry of Business, Innovation and Employment (Procurement)</td>
<td>It is still consulting internally on how the proposed option for the demonstration of EVs in government fleets could be implemented.</td>
<td>The Cabinet paper states that the Ministry of Business, Innovation and Employment will consider the appropriate level of involvement for New Zealand Government Procurement. Advice on this matter may be included in the report back to the Ministers of Transport and Economic Development by 30 June 2016.</td>
</tr>
<tr>
<td>NZ Transport Agency</td>
<td>The NZ Transport Agency has raised a number of issues including that its role does not currently extend to the promotion of EVs, as well as risks around the potential foregone RUC revenue arising from the package.</td>
<td>The May 2016 report back on funding issues will address the impact of direct and indirect subsidies for EVs, including the RUC exemption.</td>
</tr>
<tr>
<td>Ministry for the Environment</td>
<td>It would like the carbon emissions reductions associated with the targets included in the paper.</td>
<td>We have included more information about emissions from transport in the paper, and paragraph 17 of the Cabinet paper describes the expected emission reduction from EVs in qualitative terms.</td>
</tr>
</tbody>
</table>

Page 4 of 6
Appendix 2: Announcement options

Post-Cabinet announcement

1. You or the Prime Minister may wish to announce decisions immediately following Cabinet. We would support an announcement with a press release and questions and answers.

2. A pre-announcement heads up to some stakeholders would be required so that they can arrange parallel announcements about business’ and local government’s contribution to the package. A post-announcement follow up communication to all stakeholders involved in the development of the package would also be appropriate.

Energy Leaders Summit on 15-16 March

3. The Prime Minister is invited to speak on day one of the summit and you are speaking on day two. This could be an opportunity to announce Cabinet decisions to a relevant audience.

4. We would support an announcement at the summit with a speech, press release, and questions and answers. As above, a pre-announcement heads up to some stakeholders would be required.

5. If the package was announced at this summit, a photo opportunity could be organised with several electric vehicles outside the summit speech venue (Hotel Intercontinental) pending hotel management approval.

6. **Note:** This would require working to organise access to electric vehicles and discussions with summit organisers and hotel management before the package goes to Cabinet to allow adequate time to make these arrangements.

Late-March opportunities

7. If, following Cabinet decisions, a standalone event to announce the electric vehicles package is preferred, options include:

   7.1. a Parliamentary event

      7.1.1. West Foyer or similar sized area

      7.1.2. Prime Minister and Minister Bridges host

      7.1.3. Stakeholders involved in the development of the package and media invited

      7.1.4. Offer a photo opportunity with several electric vehicles on the Parliament forecourt

      7.1.5. Morning tea offered to attendees

      7.1.6. This format would allow for a larger number of stakeholders to be invited

      7.1.7. **Note:** This would require two weeks to organise in order to send invitations.

   7.2. a Media event
7.2.1. A more media focussed event could be created with electric vehicles and a charging station

7.2.2. A variation could be to offer a photo opportunity with several electric vehicles on the Parliament forecourt

7.2.3. Prime Minister and Minister Bridges host

7.2.4. Smaller group of stakeholders closely involved in the development of the package invited to attend

7.2.5. This format allows key stakeholders an opportunity to speak alongside the Government

7.2.6. A pre-event heads up to some stakeholders would required. A post-announcement follow up communication to all stakeholders involved in the development of the package would also be appropriate

7.2.7. **Note:** This would require two weeks to organise.
Electric vehicles package: final Cabinet paper

<table>
<thead>
<tr>
<th>Reason for this briefing</th>
<th>To provide you with the final Cabinet paper seeking agreement to an electric vehicle package, and to follow up on matters you raised with officials on 22 February 2016.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action required</td>
<td>Note the contents of this paper. Lodge the attached Cabinet paper.</td>
</tr>
<tr>
<td>Reason for deadline</td>
<td>To enable the Cabinet paper to be lodged with Cabinet office on 25 February 2016 so that it can be considered by the Economic Growth and Infrastructure Committee at its meeting on 2 March 2016.</td>
</tr>
</tbody>
</table>

Contact for telephone discussion (if required)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>First contact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Senior Adviser</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Principal Adviser</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erin Wynne</td>
<td>Manager, People and Environment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 23 February 2016

Attention: Hon Simon Bridges

Security level: In-Confidence

Minister of Transport’s office actions

☐ Noted
☐ Seen
☐ Approved

☐ Needs change
☐ Referred to

☐ Withdrawn
☐ Not seen by Minister
☐ Overtaken by events
Purpose of report

1. To provide you with the attached electric vehicles (EVs) Cabinet paper for lodging so that it can be considered by the Economic Growth and Infrastructure Committee.

2. To update you on the following matters which you raised at your meeting with Ministry of Transport officials on 22 February 2016:

   2.1. changes that you requested we make to the Cabinet paper

   2.2. further advice on how other government contestable funds are administered and possible projects that could be funded by a contestable fund for EVs

   2.3. how the proposed EV targets compare to the EV uptake base case that we modelled.

We have made the changes to the Cabinet paper that you requested

3. We made the following changes to the Cabinet paper:

   3.1. adding the proposal to empower road controlling authorities to allow EVs into special vehicle lanes, such as bus and high occupancy vehicle lanes

   3.2. indicating that, notwithstanding a report back on funding options for the contestable fund, repurposing the Electricity Levy is your preferred option at this stage

   3.3. stating that the contestable fund is intended to fund innovations that would otherwise not be funded, and that the report back on funding options for the contestable fund will also seek Cabinet’s agreement to principles for allocating funding

   3.4. clarifying why the paper proposes a 2025 end date for the heavy EV road user charges (RUC) exemption (because heavy EV uptake is expected to be slower than light EV uptake due to the technical limitations of existing battery technology), and being explicit that the end date for both light and heavy EV RUC exemptions will be reviewed in 2019 to assess whether they are still appropriate given actual uptake and technological developments.

Further information on operational and financial arrangements of contestable funds

4. We will provide you with advice about other contestable funds administered by government and possible projects that could be funded by a contestable fund for EVs later this week.

Comparison of EV targets with modelled uptake

5. Attached is the material we provided stakeholders, which informed the development of the proposed EV uptake targets. The material provided options for EV targets based on preliminary discussions with stakeholders.

6. The ‘business as usual’ (or base case) scenario assumes:

   6.1. no significant policy changes (e.g. the Emissions Trading Scheme continues to operate largely unchanged, the RUC exemption for light EVs ends in 2020)

   6.2. purchase price parity between petrol vehicles and pure EVs in 2024
6.3. that new EVs enter the used market after 4 years.

7. The EV targets agreed by stakeholders are higher than the 'business as usual' scenario in the 2016 and 2017 calendar years, and lower than 'business as usual' from 2018-2020. Higher rates of uptake become more achievable the closer EVs get to price parity with petrol and diesel vehicles, even though on the face of it they appear harder to achieve.

Table 1: Proposed EV targets compared with 'business as usual' scenario

<table>
<thead>
<tr>
<th></th>
<th>Year 1 2016</th>
<th>Year 2 2017</th>
<th>Year 3 2018</th>
<th>Year 4 2019</th>
<th>Year 5 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business as usual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(EVs - new and used)</td>
<td>325</td>
<td>1,759</td>
<td>7,337</td>
<td>14,154</td>
<td>25,646</td>
</tr>
<tr>
<td>Proposed targets</td>
<td>1,000</td>
<td>2,000</td>
<td>4,000</td>
<td>8,000</td>
<td>16,000</td>
</tr>
<tr>
<td>Additional EVs</td>
<td>675</td>
<td>241</td>
<td>(3,337)</td>
<td>(6,154)</td>
<td>(9,646)</td>
</tr>
<tr>
<td>(above business as</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>usual)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Stakeholders accepted that, despite being lower than the modelled base case, the proposed EV targets were still ambitious because the Motor Industry Association argued strongly that the base case was unrealistically high given its knowledge about when new EV models are likely to be introduced into New Zealand.

Recommendations

9. The recommendations are that you:

(a) **note** the contents of this briefing.

(b) **note** that we will provide you with advice about other contestable funds administered by government and possible projects that could be funded by a contestable fund for EVs later this week.

(c) **Lodge** the attached Cabinet paper by 25 February 2016 so that it can be considered at the meeting of the Economic Growth and Infrastructure Committee on 2 March 2016.

Senior Adviser

Withheld under section 9(2)(a) of the Official Information Act 1982

MINISTER'S SIGNATURE:

DATE: 24/2/16
Current registrations of electric vehicles in New Zealand

As at 31 October 2015:

<table>
<thead>
<tr>
<th></th>
<th>2015 YTD registrations</th>
<th>Total registrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure Electric Vehicles: NZ New</td>
<td>46</td>
<td>171</td>
</tr>
<tr>
<td>Pure Electric Vehicles: Used Imports</td>
<td>139</td>
<td>247</td>
</tr>
<tr>
<td>Plug-in Hybrid Electric Vehicles</td>
<td>208</td>
<td>441</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>393</strong></td>
<td><strong>859</strong></td>
</tr>
</tbody>
</table>

Targets developed at business meeting on 12 October 2015

<table>
<thead>
<tr>
<th>Year 1 2016</th>
<th>Year 2 2017</th>
<th>Year 3 2018</th>
<th>Year 4 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business as usual (EVs – new and used)¹</td>
<td>325</td>
<td>1,759</td>
<td>7,337</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td><strong>1,000</strong></td>
<td><strong>5,000</strong></td>
<td><strong>25,000</strong></td>
</tr>
<tr>
<td>Additional EVs (above BAU)</td>
<td>675</td>
<td>3,241</td>
<td>0</td>
</tr>
<tr>
<td>Percentage annual market share</td>
<td>0.42%</td>
<td>2.1%</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

- Projected cumulative total EVs (if targets met)  
  1,817² | 6,817 | 14,154 | 39,154

- Alternative scenario:
  - Projected annual EV registrations (new and used)  
    with $5,000 subsidy (new vehicles only)  
    - 619 | 7,031 | 12,143 | 17,352

¹ Advice from the new vehicle industry in New Zealand suggests that this ‘business as usual’ scenario may be too high.

² Cumulative total includes the 817 EVs currently registered in New Zealand (at November 2015).
Targets discussed at meeting on 2 November 2015

Option 1: Doubling the number of EV registrations each year

<table>
<thead>
<tr>
<th>Year</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>325</td>
<td>1,759</td>
<td>7,337</td>
<td>14,154</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>1,000</td>
<td>2,000</td>
<td>4,000</td>
<td>8,000</td>
</tr>
<tr>
<td>Additional EVs (above BAU)</td>
<td>675</td>
<td>241</td>
<td>(3,337)</td>
<td>(6,154)</td>
</tr>
<tr>
<td>Percentage annual market share</td>
<td>0.42%</td>
<td>0.83%</td>
<td>1.7%</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

Projected cumulative total EVs (if targets met)

<table>
<thead>
<tr>
<th>Year</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>1,859</td>
<td>3,859</td>
<td>7,859</td>
<td>15,859</td>
<td>31,859</td>
</tr>
</tbody>
</table>

Option 2: Targets as a percentage of annual vehicle registrations

<table>
<thead>
<tr>
<th>Year</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>325</td>
<td>1,759</td>
<td>7,337</td>
<td>14,154</td>
<td>25,646</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>1,000</td>
<td>2,000</td>
<td>4,000</td>
<td>8,000</td>
<td>16,000</td>
</tr>
<tr>
<td>Additional EVs (above BAU)</td>
<td>675</td>
<td>4,663</td>
<td>(1,646)</td>
<td>10,354</td>
<td>4,663</td>
</tr>
<tr>
<td>Percentage annual market share</td>
<td>0.42%</td>
<td>0.73%</td>
<td>5%</td>
<td>5.9%</td>
<td>10-15%</td>
</tr>
</tbody>
</table>

Projected cumulative total EVs (if targets met)

<table>
<thead>
<tr>
<th>Year</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>1,859</td>
<td>3,618</td>
<td>15,618</td>
<td>29,772</td>
<td>53,772</td>
</tr>
</tbody>
</table>

---

3 Cumulative total includes the 817 EVs currently registered in New Zealand (at November 2015).
4 Cumulative total includes the 817 EVs currently registered in New Zealand (at October 2015).
### Other useful fleet statistics

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall NZ vehicle fleet: ~3.5 million vehicles</td>
<td>Light passenger vehicles (~80%)</td>
</tr>
<tr>
<td></td>
<td>Light commercial (~11%)</td>
</tr>
<tr>
<td></td>
<td>Trucks (~3.5%)</td>
</tr>
<tr>
<td></td>
<td>Other (including motorcycles, buses)</td>
</tr>
<tr>
<td>Total annual imports (2015 estimate)</td>
<td>New ~ 120,000</td>
</tr>
<tr>
<td></td>
<td>Used ~ 140,000</td>
</tr>
<tr>
<td>Total annual light fleet (business and government) vehicle registrations</td>
<td>95,340</td>
</tr>
<tr>
<td>Total annual proportion of light fleet</td>
<td>~ 60,940</td>
</tr>
<tr>
<td>(business and government) vehicles suited to replacement with EVs</td>
<td>(63.9%)</td>
</tr>
</tbody>
</table>

---

5 Registration of new and used light vehicles are at a high level compared to past years. This is due in part to a rebound from a drop in imports related to the 2008 global financial crisis.

6 Based on 2014 figures.

7 Includes new and used cars, SUVs and vans.
AIDE MEMOIRE: CABINET PAPER SEEKING AGREEMENT TO AN ELECTRIC VEHICLES PACKAGE

<table>
<thead>
<tr>
<th>Title</th>
<th>Electric vehicles: package of measures to encourage uptake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committee</td>
<td>Cabinet Economic Growth and Infrastructure Committee (EGI)</td>
</tr>
<tr>
<td>Issues</td>
<td>EGI is expected to consider this Cabinet paper at its meeting of 16 March 2016. The paper seeks agreement to a package of measures to encourage the uptake of electric vehicles.</td>
</tr>
</tbody>
</table>
| Ministerial Consultation | Minister of Finance  
Minister of Revenue  
Associate Minister for Economic Development  
Minister for ACC  
Minister for Climate Change Issues  
Minister for the Environment |

Talking points

- Transport accounts for around 17 percent of New Zealand’s greenhouse gas emissions. It was the second largest consumer of energy in 2014 and more than 99 percent of transport energy is oil-based.

- Electric vehicles (EVs) are part of a response that looks to adopt new technologies as a means to transition to a low carbon economy without compromising individual mobility or economic growth. EVs are a technology that is well suited to New Zealand. They represent an opportunity to leverage New Zealand’s abundance of renewable electricity to reduce transport emissions.

- However, a number of barriers stand in the way of New Zealand realising the benefits from EVs. Officials have worked with key business leaders and local government to develop a joint package of measures to address these barriers and speed the uptake of EVs.

- The proposals in this paper represent central government’s contribution to this package.

I propose that the Energy Efficiency and Conservation Authority deliver an EVs information campaign to build awareness and dispel myths about EVs

- The campaign would target businesses and household consumers over a period of five or more years.

- The campaign would aim to increase the purchase of EVs by addressing information problems. These problems include a lack of awareness of EVs, uncertainty about the total costs of ownership, expectancy of battery life, what, if any impact to the environment disposing of batteries may cause, and other misconceptions about EVs.

- To enable the campaign to begin, I propose that the Energy Efficiency and Conservation Authority commence work in 2015/16 using reprioritised funding, and that from 2016/17 it reprioritise $1 million per year from its existing baseline for an initial period of five years 2016/17-2020/21.
I propose that the Ministry of Business, Innovation and Employment investigate the feasibility of joint procurement across the government and also across private sector fleets to help overcome supply problems.

- Stakeholders involved in developing the government-industry package of measures to speed the uptake of EVs identified joint procurement as a potential way to reduce the relatively higher purchase prices of EVs and the limited variety of models available in New Zealand.

- The Ministry of Business, Innovation and Employment would investigate the feasibility of having joint public and private sector fleet procurement, and report back to the Ministers of Transport and Economic Development by 30 June 2016.

- The costs of the investigation into the feasibility of joint procurement would be funded by the two departments’ existing baseline funding.

To maximise the efforts of industry and government in addressing the barriers to EV uptake, and to encourage innovation, I propose establishing a contestable fund of $6 million per annum.

- The fund would be invested in projects that accelerate the uptake of EVs, and for innovations to encourage EV uptake that would not otherwise be funded.

- Projects could be developed by businesses, local communities, or government, but to be funded, projects would be required to commit co-funding.

- I propose the contestable fund of up to $6 million per year will also cover the costs of establishing and administering the fund. It is expected that at least $1.5 million of the fund for 2016/17, and $1 million each year thereafter would be invested in the procurement measures that I will touch on in a moment.

- The contestable fund will initially be created through a mixture of reserves and reprioritised existing baseline from the Energy Efficiency and Conservation Authority of up to $4 million through to the end of 2016/17.

- For years beyond 2016/17, I am considering options to recover the cost of the fund through a levy on consumers. Two possible levies are the levy on electricity industry participants (the Electricity Levy), and the levy on petrol and diesel consumers (the Petroleum Fuels Levy).

- Primary legislation changes would be required to use either of these levies for the new EV contestable fund.

- Further work, including formal public consultation, is needed to determine the most appropriate existing levy for the contestable fund, including principles for funding allocation.

- I seek agreement to report back by 30 May 2016 with policy decisions on the establishment of the fund. This report back will also provide advice on other funding options for the contestable fund and the financial implications of any direct or indirect subsidies.

- I also propose that the criteria for allocating the fund, and co-funding requirements be approved jointly by the Ministers of Transport and Energy and Resources, based on the guiding principles Cabinet is to agree.

- Once established, I propose that the Energy Efficiency and Conservation Authority administers the fund, with oversight from the Ministry of Business, Innovation and Employment.
This contestable fund will be developed as a tool to promote EVs as they are already available and are a proven technology. However, I am aware that there are other technologies, including hydrogen, that may also have an important role to reduce emissions in New Zealand. I will ask my officials to consider how the scope of the fund might be expanded in subsequent years to include activities to promote other low and zero emissions technologies.

**Meaningful procurement measures are needed to tackle the supply and demand issues facing EVs. These include an EVs demonstration, a financial ‘kickstarter’ for government agencies, and uptake targets**

**A demonstration of EVs in government fleets**

- To build demand and to show commitment to EVs, I propose that the Ministry of Business, Innovation and Employment administer an EVs demonstration programme across the government fleets.

- The trial is initially intended to have 24 vehicles in four government fleet locations. Subject to funding being available, the demonstration could begin in the 2016/17 financial year and run from one to three years.

- In the first year, 2016/17, the demonstration would require one-off funding of approximately $500,000 to cover the incremental costs of the demonstration vehicles along with the costs of administration, monitoring and the production of case studies for public sector fleet managers. Future costs would depend on the outcomes achieved. I propose that this funding be sourced from the contestable fund outlined above.

- Depending on the outcomes achieved, the demonstration could be scaled up. I propose that the Ministry of Business, Innovation and Employment report to the Ministers of Transport and Economic Development on the potential for the demonstration to be expanded, within six months of the trial commencing.

**A financial ‘kickstarter’ for the purchase of EVs in government fleets**

- Given the current constrained funding environment, it is likely that government agencies will favour cheaper conventional vehicles over an EV equivalent.

- To overcome this resourcing barrier, I propose that a financial ‘kickstarter’ be available to government organisations that are eligible to purchase from the All-of-Government vehicle catalogue.

- The ‘kickstarter’ would provide funding to cover the price differential between a conventional vehicle and an EV equivalent. This is designed to achieve a critical mass of EVs into government fleets.

- To do this, I propose that funding of $1 million per year be made available. This funding would come from the contestable fund outlined above.

**Committing with industry and local government to a ‘New Zealand Inc’ uptake target**

- Stakeholder consultation indicated that the private sector in particular wanted a target for EV uptake and one that demonstrated the Government’s commitment to reducing transport emissions via EVs.
Based on the stakeholder feedback, I propose a target of EVs making up two percent of the vehicle fleet by the end of 2021. To achieve the target, new EV registrations would need to double each year until 2021. That means increasing annual registrations of EVs from about 500 in 2015, to 32,000 in 2021 (e.g. 1,000 in 2016, 2,000 in 2017, 4,000 in 2018, and so on).

To help ensure that the growing network of charging stations is safe and cohesive, I have asked the NZ Transport Agency to support private sector development of public charging infrastructure

- Using its existing funding, the NZ Transport Agency will clarify the regulatory framework for charging infrastructure, and provide national information and guidance for public charging infrastructure.
- Development of charging infrastructure needs to be supported in a way that is complementary to and does not compete with private investment. Therefore, I do not propose direct government funding or ownership of public charging infrastructure.
- Information about public charging infrastructure will also be covered by the proposed campaign to be delivered by the Energy Efficiency and Conservation Authority.
- The Energy Efficiency and Conservation Authority and the New Zealand Transport Agency will coordinate their EV activities.
- As well, officials from the Ministry of Transport and the Ministry of Business, Innovation and Employment will continue to monitor how the charging infrastructure develops, including the impact of EVs on national and local electricity infrastructure.

As a financial incentive for uptake, I propose extending the road user charges exemption for light EVs from 30 June 2020 to 31 December 2021, and introducing a road user charges exemption for heavy electric vehicles until 31 December 2025

Exemption for light EVs

- Light EVs are currently exempt from road user charges until 30 June 2020. Exempting EVs from road user charges is a transparent and efficient way of providing a financial incentive to encourage consumers and businesses to opt for EVs over equivalent conventional vehicles.
- The current exemption, provides an owner with a subsidy of around $2,500 between now and 2020 when it is set to expire.
- I propose to amend the existing road user charges exemption for light EVs until 30 December 2021, which is when I expect the two percent uptake target to be met. This is an 18 month extension from the existing end of the exemption.
- Officials will carry out a review in 2019 as to whether the two percent target is likely to be met by then. They will recommend adjustments to the end date if needed at that time.
At this threshold, the maximum foregone revenue would be in the order of $35.7 million per year, based on current road user charges rates.

**Exemption for heavy EVs**

- I propose that additional amendments are made to enable an exemption for heavy EVs (i.e. trucks and buses) from road user charges, as the current exemption only applies to light vehicles.

- This exemption will initially last until 2025, rather than 2021 as for the light vehicle RUC exemption, as it is likely it will take longer for them to reach two percent of the heavy vehicle fleet (3,000 vehicles). The end date would also be reviewed in 2019.

- A two percent uptake of EVs across the heavy vehicle fleet by 2025 would result in foregone revenue of about $24 million per year, once the threshold is reached. A two percent uptake of EVs across the heavy vehicle fleet by 2030 would result in foregone revenue of about $29 million per year.

**Foregone revenue risk**

- A loss of foregone revenue in the order of up to $40 million might be experienced by the end of 2021. This would be followed by a maximum of $29 million per year foregone revenue by 2030, assuming two percent of the heavy fleet is electric by that time.

- The risk of foregone revenue would be managed as existing revenue and expenditure pressures currently are. The New Zealand Transport Agency Board would decide on the projects to be prioritised for funding in the National Land Transport Programme. These decisions would be made in line with the Government’s priorities articulated in the Government Policy Statement on land transport.

*I propose that Inland Revenue, in consultation with industry stakeholder groups, review the depreciation rate and the method used to calculate fringe benefit tax as they relate to EVs to ensure that EVs are not being disadvantaged by tax rules*

- Industry representatives have raised concerns that these two areas of tax law may be discouraging the purchase of EVs by companies.

- Inland Revenue will review the depreciation rate and the method used to calculate fringe benefit tax as they relate to EVs, and report on the results to the Minister of Revenue and subsequently to the Minister of Transport by 31 March 2017.

- If there is evidence that shows that the current tax rules are overtaxing EVs then this would provide a strong case for change.

- Relevant industry groups, for example, Drive Electric, electric vehicle manufacturers and the Sustainable Business Council, are likely to be well placed to provide the evidence base to assist with these reviews.
I propose that my officials work with the Ministry of Business, Innovation and Employment and the ACC to investigate how the ACC levy overcharge on plug-in hybrid EVs might be addressed

- Currently the owners of petrol plug-in hybrid EVs pay an estimated $15 to $40 more per year in ACC levies than equivalent diesel or pure EV owners\(^1\) because of the way they are classified by the NZ Transport Agency, and the way in which ACC levies are charged.

- I propose that my officials report back to Cabinet by 1 October 2016 on the results of this investigation. It is possible that changes would require amendments to legislation and these can be considered as part of the proposed package of legislative amendments presented in this paper.

As a non-financial incentive, I propose to remove the regulatory barriers that prevent Road Controlling Authorities from allowing electric vehicles into bus and transit lanes

- Allowing EVs access to bus and high occupancy vehicle lanes is the non-financial measure reported to have the highest value as an incentive to the owners.

- Enabling EVs to use special vehicle lanes would require amending land transport Rules\(^2\). It would also require a minor amendment to the Land Transport Act 1998 to empower road controlling authorities to make bylaws for that purpose.

- Under this option, road controlling authorities would maintain the flexibility to choose which special vehicle lanes EVs could access, allowing them to manage transport priorities along a corridor, including balancing EV promotion with network efficiency.

To provide ongoing leadership and coordination for the total government-industry package, I propose establishing a coordinating group convened by central government

- I propose that Cabinet invite me, as the Minister of Transport, to decide on the terms of reference, membership and administrative arrangements for the EVs group.

Next steps

- If the Committee agrees to the proposed package, a public announcement will be made about the EVs package, potentially at a launch event.

- I will also publicly consult on a range of options to expand an existing levy so that one may be used to fund transport energy initiatives such as the EV package.

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\(^1\) The issue does not arise if a plug-in hybrid also uses diesel power, as it would not pay the ACC levy as part of the fuel costs. At present there are no diesel plug-in hybrid electric vehicles.

**Speaking points to address Treasury’s comments**

**Contestable fund**

- I propose to report back with recommendations for funding options, which include possible changes to an existing levy, and principles for allocation of the fund, by 30 May 2016 (noting there would be public consultation on the expanded levy options before then).

- I consider that the principles Cabinet is to agree will help ensure that the activities supported through the contestable fund are of high value.

- In the first instance, the contestable fund is a tool to promote EVs. Because New Zealand’s electricity is largely generated from renewable sources, we can reduce greenhouse gas emissions from transport by using electric vehicles, more so than countries that use non-renewable energy sources.

- I am aware other low emission technologies may also play a role in reducing greenhouse gas emissions from transport, such as hydrogen fuel cell vehicles.

- However, I see EVs are a ‘here and now’ opportunity. Several models of plug-in EVs are currently offered in New Zealand, and I expect more will be introduced in the coming year. For some motorists, the total cost of owning an EV is already similar to a petrol or diesel vehicle.

- For this reason, I think it appropriate that the contestable fund begin as a measure to encourage the uptake of EVs. However, I will ask my officials to consider how the fund might be expanded to include activities to promote other low and zero emissions technologies.

**Road user charges exemption**

- EVs currently make up less than 0.03 percent of the fleet, projected to be 2 percent by the end of 2021. Exempting EVs from road user charges therefore represents a relatively small amount of forgone revenue, and can be considered an investment in evolving our land transport system.

- I recognise that EVs will need to become subject to road user charges in future once uptake exceeds the limits proposed in this Cabinet paper.

- The road user charges exemption is time bound. The Road User Charges Act 2012 requires that the Order in Council which specifies the period during which road user charges are not payable by light EVs must specify the date on which the exemption expires.

- The exemption for light EVs is currently in place until 30 June 2020. The proposal to extend the exemption for light EVs will require amending the period set out in the Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2012 to state that the exemption applies until 31 December 2021. This will give consumers certainty about the minimum period for which the exemption will last.

- Similarly, introducing a road user charges exemption for heavy EVs, will also require an Order in Council that specifies an end date for this exemption.
Options for procurement of electric vehicles

Reason for this briefing
You have requested preliminary advice on options for procurement of electric vehicles (EVs), following decisions on electric vehicles by Cabinet Economic Growth and Infrastructure Committee on Wednesday 16 March 2016. The paper provides several options for assisting in the procurement of EVs.

Action required
Review this paper and discuss your feedback with officials at your meeting on Monday 21 March 2016. This will also inform your discussions with Hon Steven Joyce on Monday at 1.30pm about procurement issues.

Deadline
Monday 21 March 2016

Reason for deadline
This is on the agenda for the Officials Meeting scheduled for 21 March 2016 and for your meeting with Minister Joyce.

Contact for telephone discussion (if required)

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<td>Erin Wynne</td>
<td>Manager, Policy Programme</td>
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<td>Principal Adviser</td>
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MINISTER'S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 18 March 2016

Attention: Hon Simon Bridges (Minister of Transport)

Security level: In-Confidence

Minister of Transport’s office actions

☐ Noted
☐ Seen
☐ Approved
☐ Needs change
☐ Referred to
☐ Withdrawn
☐ Not seen by Minister
☐ Overtaken by events
Purpose of report

1. The briefing provides preliminary advice on options to assist with the procurement of electric vehicles (EVs) for discussion at the Officials meeting on Monday 21 March 2016. This will also inform your discussions with Hon Steven Joyce on Monday at 1.30pm about procurement issues.

Background

2. Following decisions by the Cabinet Economic Growth and Infrastructure (EGI) Committee on Wednesday 16 March 2016 around the EV package [EGI-16-MIN-0034 refers], you asked for further advice on options around procurement of EVs. This paper builds on the advice set out in the Cabinet paper, and represents early thinking on how procurement of EVs might be able to progress. The paper has been prepared by the Ministry of Transport with assistance from officials at the Ministry of Business, Innovation and Employment (MBIE).

Options to assist procurement

3. It is widely recognised that the high upfront cost of EVs is a major obstacle to their uptake. In the absence of direct subsidies, there are other options to reduce the price of EVs in New Zealand. One of the key ideas in the Cabinet Paper was to conduct a joint public-private procurement process in order to generate a large potential order for EVs (consistent with the co-creation process with industry and the Sustainable Business Council (SBC) and other stakeholders). The combined order could then be used to negotiate a lower price. This remains an option, discussed below, but there are also other options that may be considered to assist in the procurement of EVs.

Ministry of Business, Innovation and Employment (MBIE) NZ Government procurement process

4. The NZ Government Procurement Vehicles (NZGP) Centre of Expertise (CoE) has provided the following advice.

5. The CoE has started some early market engagement and has considered its appropriate level of involvement in each of the initiatives. It will lead the procurement work with a view to aligning it with all of Government (AoG) vehicle contracts. It is willing to support the other initiatives, but is mindful of available resources. It can provide the necessary contacts, such as agencies wanting to participate in the trial and source the vehicles for the trial.

6. A trial purchase of 25 EVs could begin in the 2016/17 financial year, provided vehicles are available that meet the Government’s requirements. For example, the mandatory requirement, set by NZGP, for AoG passenger vehicle classes is a minimum five star NCAP rating. Some potential vehicles, for example the Nissan Leaf, sold domestically in Japan, is currently not five star. Neither Ministry wishes to see safety compromised. Five star safety should remain a core requirement.

7. If the timing demands, the first 25 vehicles could be purchased as an off contract one-off buy. Assuming vehicles that meet relevant criteria can be found, we understand that purchase could happen reasonably quickly.

8. The trial initiative would be closely linked to the steps required to establish an EV vehicle class within the AoG vehicles contract, which would include defining the requirements including any required/minimum vehicle specifications. Timing will play a critical role in the
process used to create the AoG EV class. While the AoG vehicles contract allows for the addition of new classes under the AoG panel suppliers, the current suppliers do not currently have fit for purpose vehicles for the EV class.

9. If the creation of the new class is delayed, until one or more of the current providers can meet the requirements, then an open procurement process would not be required. Establishing the EV class earlier will require a robust but light touch approach to market to identify viable supply chains and vehicles.

10. Through the AoG Vehicles contract, the CoE has gathered information on Government and private sector purchasing interest for EVs. The CoE included EVs as a viable vehicle type in the return to market for the contract in 2015. It is actively working with suppliers (contracted and non-contracted) and has knowledge of the supply market and how the current vehicles align to Government requirements. As part of the procurement process NZGP would look at how the private sector will be able to benefit, including as part of the proposed bulk procurement process.

11. The Ministry will continue its discussions with the CoE on the implementation of EGI’s decisions, should these be confirmed at Cabinet on Monday 21 March 2016.

A Ministerial delegation to Japan to encourage sales of new EVs

12. In mid-2015, you visited a number of Japanese vehicle manufacturers and sought to encourage them to sell EVs in the New Zealand market. Having a Minister visit these companies was valuable, as it showed New Zealand’s high level of interest in EVs. We consider a further visit, with a delegation of potential buyers, and relevant organisations such as the SBC and the Motor Industry Association, would have a positive effect. It would assist in negotiations to secure vehicles not currently available in New Zealand, especially if there was a commitment to purchase a specific quantity of vehicles. Public and private commitment to purchase EVs through the bulk procurements process is going to be central to the success of the package, and achieving the new targets, especially in the first few years.

13. A visit comparable to the one in 2015 would build on the good relationships established on your previous visit. It could be arranged with around eight weeks notice. However, to be effective, work would need to be done to in New Zealand to get commitments to purchase the vehicles. This may take longer to achieve and mid-2016 could be a realistic timeframe for such a visit to take place.

14. We would expect that a direct meeting would have the most benefit with Nissan and Mitsubishi Motors, who are the market leaders for EV sales in Japan. Neither Toyota nor Honda currently have full EV offerings and sales of their plug in hybrid vehicles have low sales (less than 50 vehicles per month in second half of 2015), compared to the Leaf and Outlander (both around 1000 units a month). No other Japanese manufacturers are currently selling EVs in Japan. This suggests there may be supply constraints from other manufacturers, for even modest orders.

UK used vehicle market could provide a source market

15. Although Japan is an obvious choice for New Zealand to purchase both new and used EVs from, EVs are still not being sold in large numbers in the Japanese market.

16. Drive Electric has approached the Government on several occasions offering to facilitate the purchase of used electric vehicles from the United Kingdom. Relatively large numbers of EVs can be purchased at 18 months to 2 years old from commercial fleets. Because of the subsidies for purchase of EVs in the UK, and refunds on taxes if the vehicles are exported,
UK EVs can be secured at prices that make the vehicles directly competitive with conventional powered equivalents when sold in New Zealand. For example, Drive Electric has provided indicative costs that showed an 16–24 month old Nissan Leaf imported from the UK, could be sold in New Zealand for around $35–$40,000.

17. It may be effective to source used vehicles from the UK. This could be done relatively easily through a tender process, once orders had been identified.

**China is also a source of EVs**

18. A delegation was in New Zealand in early March 2016 with representatives of the Machinery Sub-Council of the China Council for the Promotion of International Trade, seeking to promote trade in EVs. Representatives of Chinese EV manufacturers, such as the electric bus manufacturer BYD have also separately been in New Zealand in mid-March. Both groups have shown strong interest in working with New Zealand to enable export of EVs from China to New Zealand. There may be benefit in a Ministerial level visit to China to follow up on these preliminary discussions to consider the suitability of Chinese vehicles for New Zealand. In particular, we would need to confirm whether Chinese made vehicles meet all our requirements around safety.

19. We understand that you are scheduled to attend a China Mining conference in Tianjin 22-25 September 2016. It may be possible for you to also discuss EVs as part of this trip. If you do wish to discuss EV procurement it would require further consideration as to who it would be beneficial to visit. Alternatively, the Trade Council identified a large EV conference, the China Energy Saving and New Energy Vehicle Technology Exhibition, 13 – 16 October in Beijing\(^1\) as an event you may wish to attend.

**The Government could underwrite the risk of buying used EVs**

20. As already noted, used electric vehicles can already be purchased from the United Kingdom (and potentially from Japan as well) at prices that are comparable to conventional vehicles of an equivalent age.

21. While there is no major barriers to prevent the import of the used EVs at this time, such as those promoted by Drive Electric, the prices for most are still well above those most private motorists are willing to pay for used vehicles. Most newly-imported used conventional vehicles sell for less than $15,000. This suggests that only commercial buyers are likely to purchase near-new EVs. We have been advised that the lack of warranty from the original manufacturer and lack of knowledge about expected depreciation and subsequent residual values on the second hand vehicles has meant there has been little interest in this trade so far.

22. To overcome this barrier the Government may be able to offer to underwrite both the risk covered by a conventional mechanical warranty and for depreciation on resale. This could be done directly by the Government (depending on the agreed scope and parameters, this could be through the proposed contestable fund) or, alternatively, it could be done by facilitating a commercial provider to cover the risks at a commercial rate. We do not know how successful this approach would be in overcoming market concerns and would need to work further with sector experts to develop this.

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Appointment of an EV champion and promotion of the package

24. It is clearly beneficial to be able to bring together a package of EVs sales. This enables us to present a manufacturer with a large enough sale as to be able to offer reasonable discounts and to secure vehicles not currently available in the New Zealand market. We expect that this process could be successfully managed by MBIE (or another part of Government if desired). However, the approach might be enhanced if either a specialist vehicle marketer or alternatively a high profile figure, from the business community, was engaged to assist with the process. This person would need to understand Government objectives and standards. The role of the champion would be to meet with potential purchasers and encourage them to be part of a bulk purchase deal.

25. We have not assessed costs, but to work well, this role would need to be near full time for several months in order to be beneficial. The person would need to work closely with MBIE’s CoE on this task.

26. We have been advised that you will be asked to speak to a large meeting of vehicle fleet managers in Auckland in September 2016. This type of meeting will provide a good opportunity for you to promote the role that fleets can play in promoting the uptake of EVs and in meeting the target.

Recommendations

27. The recommendations are that you:

(a) note that, in cooperation with officials from the Ministry of Business, Innovation and Employment (MBIE) we have prepared some initial thinking on options for procurement of electric vehicles

(b) note that this is prepared as a basis for discussions with officials at the meeting on Monday 20 March 2016

(c) note that this may also assist you with your discussions with the Hon Steven Joyce scheduled to take place on Monday 20 March at 1.30pm

Principal Adviser

Erin Wynne
Manager, Policy Programme

Withheld under section 9(2)(a) of the Official Information Act 1982

MINISTER’S SIGNATURE:

DATE: 19/3/16
Cabinet Paper on Promoting the Uptake of Electric and Other Low Emission Vehicles

Reason for this briefing
In March 2016 Cabinet requested a report back on how a contestable fund could best be utilised to help promote the uptake of low emission technologies. Cabinet also asked for further advice on the costs of a proposed demonstration of electric vehicles (EVs) across government fleets [CAB-16-MIN-0106.01 refers]. This paper asks that you sign the attached draft Cabinet paper reporting back on these two matters.

Action required
Sign the attached draft Cabinet Paper

Deadline
Wednesday 6 April 2016

Reason for deadline
Deadline for submission to EGI by Thursday 8 April to enable consideration at EGI on Wednesday 13 April 2016.

Contact for telephone discussion (if required)

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<td></td>
<td>Principal Adviser</td>
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<td>Erin Wynne</td>
<td>Manager, Policy Programme</td>
<td>Direct line</td>
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MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 05 April 2016

Attention: Hon Simon Bridges (Minister of Transport)

Security level: In-Confidence

Minister of Transport’s office actions
- Noted
- Seen
- Approved

- Needs change
- Referred to
RELEASED UNDER THE OFFICIAL INFORMATION ACT
Purpose of report

1. The purpose of this report is to provide you with a draft Cabinet paper, in response to Cabinet’s request in March 2016 for a report back on how a contestable fund could best be utilised to help promote the uptake of low emission technologies. Cabinet also asked for further advice on the costs of a proposed demonstration of electric vehicles (EVs) across government fleets [CAB-16-MIN-0108.01 refers].

2. It also provides advise on the feedback from the Treasury on the draft Cabinet paper.

Comment

3. Officials at the Ministry of Transport, Ministry of Business, Innovation and Employment and Energy Efficiency and Conservation Authority have worked closely to produce this new draft Cabinet paper. We consider it addresses the key concerns raised by Treasury in their departmental comments on the March paper. However, Treasury officials do not accept this and will provide separate departmental comments and have asked for split recommendations, though they have not provided these at this time.

The paper proposes that dedicated fund is only established for one year, while separate work on re-purposing an existing levy is completed

4. Among the key issues identified by the Treasury is a concern that the March 2016 paper did not clearly demonstrate a need for the proposed fund, especially in the longer term. After consultation with the Treasury, the paper now proposes that the fund be established for one year using reserves already identified by Energy Efficiency and Conservation Authority.

5. The Treasury also raised concerns over the lack of clarity around the administrative and governance arrangements for the fund. They indicated they were especially concerned about how the Government could be sure that any spending was high quality, and did not displace other higher quality projects. The Treasury’s preferred solution is to use the first year of operation of the dedicated fund as a way of resolving these practical issues. The information collected would be important to establish the fund for the long term.

6. Although we have sought to address Treasury’s concerns in the paper, Treasury does not accept that sufficient work has been done to identify that the dedicated fund is required, or that it will deliver quality spending. They will be providing departmental comments to this effect on Friday for inclusion in the final paper.

The proposed paper on re-purposing an existing energy fund should accompany this paper

7. We are aware that the approach of creating the fund for only one year creates a risk, especially if the work on re-purposing an existing levy planned by Ministry of Business, Innovation and Employment, which depends on amendments to primary legislation, is delayed. To some extent these risks can be managed by investigating alternative funding options at the same time, which include the options of a new bid for funding through the Budget 2017/18 or a reprioritisation of Crown funding through the Energy Efficiency and Conservation Authority.

8. The paper notes that the ongoing funding was expected to come from a re-purposed levy in the energy sector. We consider it would assist Cabinet’s ability to see how the two proposals are linked if the papers were considered at the same time. We understand from Ministry of Business, Innovation and Employment officials that the paper could be finalised
relatively quickly, though it is unlikely it could be ready for consideration by EGI on 13 April 2016, as is planned for this paper.

9. Again, although the paper has sought to address Treasury’s concerns, they do not accept that it is appropriate to agree to the establishment of an ongoing fund after the first year, until the parallel process being undertaken by the Ministry of Business, Innovation and Employment on the re-purposing a levy, and determining the preferred funding option, has been completed.

The proposed 24 vehicle trial will be funded directly from Energy Efficiency and Conservation Authority’s reserves

10. Cabinet also requested advice on the costs of the proposed trial of EVs in the government fleet. The paper sets out the detailed costs in Annex 2 and the body of the paper notes that it would be explicitly funded from the approximately $4 million of reserves available. This will leave $3.5 million for other activities.

The administration of the fund will be reported back to you

11. We are aware of your desire for the Ministry of Transport to have an active role in the oversight of the dedicated fund and other activities to promote the uptake of EVs. The Ministry fully expects to take a leadership role, along with the Ministry of Business, Innovation and Employment. However, we expect the actual deployment of the fund will be the role of the Energy Efficiency and Conservation Authority.

12. The attached Cabinet paper also notes that the role of the leadership group established by the March Cabinet paper in the operation of the dedicated fund has not been fully determined. The paper proposes that it would include membership from Ministry of Transport, Ministry of Business, Innovation and Employment and Energy Efficiency and Conservation Authority. This will be subject of a further report back to you, as agreed by Cabinet.

Recommendations

13. The recommendations are that you:

(a) **note** that the attached paper reports back to Cabinet on two matters on how related to how a contestable fund could best be utilised to help promote the uptake of low emission technologies that was requested in response to the March 2016 Cabinet paper on electric vehicles [CAB-16-MIN-0108.01 refers]

(b) **note** that the Treasury intend to make a Departmental comment and to insert split recommendations, to the effect that they do not support the fund being established at this time
(c) sign the attached paper and submit to EGI for consideration. Yes/No

Principal Adviser

Withheld under section 9(2)(a) of the Official Information Act 1982

Erin Wynne
Manager, Policy Programme

MINISTER'S SIGNATURE:

DATE:
AIDE MEMOIRE: CABINET PAPER

<table>
<thead>
<tr>
<th>Title</th>
<th>Promoting the uptake of electric and other low emissions vehicles</th>
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<tr>
<td>Committee</td>
<td>Economic Growth and Infrastructure</td>
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<tr>
<td>Issues</td>
<td>EGI is expected to consider this Cabinet paper at its meeting of 13 April 2016. The paper seeks agreement to an electric vehicle contestable fund. It provides a report back agreed by the Committee on 16 March 2016 when it considered a package of measures to encourage the uptake of electric vehicles.</td>
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<tr>
<td>Ministerial Consultation</td>
<td>None</td>
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Talking points

- In March 2016 Cabinet invited me (as Minister of Transport and the Minister of Energy and Resources) to report back on how a contestable fund could best be utilised to help promote the uptake of low emission technologies. Cabinet also asked for further advice on the costs of an agreed demonstration of electric vehicles (EVs) across government fleets.

- Low emission vehicle (LEV) technologies, especially EVs, provide New Zealand with the opportunity to reduce transport greenhouse gas emissions, without compromising individual mobility or economic growth. However, there are some market failures that mean uptake may not happen as fast as it could.

- For this reason, I proposed a package of measures to Cabinet last month to encourage the uptake of EVs. Parts of that package were agreed, and I was asked to report back on the contestable fund that I had proposed and provide advice on the EVs demonstration.

Contestable fund

Rational for fund

- In addition to the information and coordination problems in the EV market, stakeholders have identified the following immediate barriers to greater uptake of EVs and other LEVs:
  1. lack of supply of suitable vehicles into the New Zealand market
  2. price differences with conventional vehicles
  3. concerns over residual values and maintenance.

- A contestable fund would help fund innovative projects to overcome these barriers.
Principles for fund

- The overarching principle of the contestable fund is that it should encourage innovation and investment to promote, enable and accelerate the uptake of electric and other LEVs into New Zealand, that might otherwise not occur.

- The fund will not be used to subsidise the purchase price of EVs, or to compete directly with the private sector.

- I propose the guiding principles of the contestable fund to promote the uptake of LEVs, including EVs, are to:
  1. support innovative activities to promote the supply of LEVs that would not otherwise occur
  2. implement measures that will enable rapid uptake of EVs, and other LEVs as they become available
  3. remove barriers to uptake, including the reduction of financial risk and provision of charging infrastructure
  4. provide value for money (within the context of the EV programme)
  5. be co-funded, by businesses, industry bodies, local communities, and government.

Types of initiatives that could be funded

- The March 2016 Cabinet paper proposed the following examples of initiatives that could be funded:
  1. the creation and promotion of branded tourism routes using EVs
  2. demonstrations of vehicle types currently not used in New Zealand, such as electric buses and electric vans in commercial fleets (e.g. Greater Wellington Regional Council is already investigating demonstrations of electric buses)
  3. EV car sharing schemes that promote EVs and new ways of addressing transport demand (e.g. both Auckland and Christchurch City councils are investigating EV car sharing).

Funding sources

- As proposed in the March 2016 Cabinet paper, the fund will initially be established through a mixture of reserves and reprioritised existing baseline funds from the Energy Efficiency and Conservation Authority. Funding of $4.0 million is already available for this first year (2016/17), but not for out years.
• For initiatives (such as those outlined above) to have an impact, I propose a contestable fund of up to $6 million per year will be required in out years.

• For out years (2017/18 onward), I am considering options to re-purpose an existing energy or transport levy. Further work, including public consultation, is needed to determine the most appropriate existing levy for the contestable fund. I will soon be seeking Cabinet approval to release a consultation document with options for re-purposing an existing levy before reporting back by August 2016 with my preferred funding option.

Governance of the fund

• I propose that the contestable fund will be governed by a group of senior officials from the Ministry of Transport, the Energy Efficiency and Conservation Authority, and the Ministry of Business, Innovation and Employment. They will work with the leadership group established by the March 2016 Cabinet paper.

• I also propose that the Energy Efficiency and Conservation Authority administer the fund with oversight from the Ministry of Business, Innovation and Employment and Ministry of Transport.

EV demonstration

• The March 2016 Cabinet paper invited me, as the Minister of Transport and the Minister of Energy and Resources, to report back on the costs of the proposed EV demonstration across the government fleets, initially involving approximately 24 vehicles, with the potential for the demonstration to be expanded.

• Given the more significant procurement work proposed in my earlier Cabinet paper, I do not intend to progress the demonstration at this time.

Next steps

• Should the committee agree to establish the fund, a public announcement will be made about the EVs package, potentially at a launch event.

• I will also publicly consult on a range of options to expand an existing levy so that one may be used to fund transport energy initiatives such as the EV package. I will soon seek Cabinet approval to release a consultation document with options for re-purposing an existing levy before reporting back by August 2016 with my preferred funding option.
Electric Vehicles Programme: draft implementation plan

Reason for this briefing: To provide you with key information about how the Electric Vehicles Programme will be implemented by agencies, including key deliverables and milestones.

Action required: Consider the contents of this briefing, and discuss with officials.

Deadline: Thursday 9 June 2016

Reason for deadline: To enable a timely discussion with you about the implementation of the Electric Vehicles Programme.

Contact for telephone discussion (if required):

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<td>Erin Wynne</td>
<td>Policy Manager, Programme</td>
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MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 31 May 2016

Briefing number: OC04064

Attention: Hon Simon Bridges (Minister of Transport)

Security level: In-Confidence

Minister of Transport’s office actions

☐ Noted
☐ Needs change
☐ Withdrawn
☐ Approved
☐ Seen
☐ Referred to
☐ Not seen by Minister
☐ Overtaken by events
About this report

1. The purpose of this report is to inform you of how agencies intend to implement the Electric Vehicles Programme (the Programme) announced on 5 May 2016. This includes information about the timing of deliverables and key decisions that we will seek from you.

2. A summary of the actions to implement the Programme is set out in the attached A3.

3. Information about the implementation of each measure under the Programme is attached as Appendix 1.

4. The New Zealand Transport Agency (NZTA), Energy Efficiency and Conservation Authority (EECA), Ministry of Business, Innovation and Employment (MBIE – specifically, the Energy Markets Policy, NZ Government Procurement, ACC Policy units), the Accident Compensation Corporation (ACC), and Inland Revenue Department (IRD) have provided the content in Appendix 1 for the measures that they lead.

Amendments to this briefing following its submission to your office

5. On 27 May 2016, your office provided comments on this briefing requesting:
   5.1. amendments to the key messages for some of the measures
   5.2. more information about EECA’s public outreach activities under the electric vehicles information and promotion campaign.

6. We made changes to this briefing in response to the comments above.

7. As requested, we also provided to your office advice about whether the amendments to transport legislation to implement the Programme could be progressed through the Land Transport Amendment Bill or a Road User Charges Amendment Bill. We can provide you with this information if you wish to see it.

Background

8. On 5 May 2016, you publicly announced the Government’s Electric Vehicle Programme which aims to increase the uptake of electric vehicles in New Zealand. The package also aims to develop the electric vehicle market in New Zealand, and the supporting infrastructure for that market.

9. The Programme includes:
   9.1. a target of doubling the number of electric vehicles in New Zealand every year to reach approximately 64,000 by 2021
   9.2. extending the Road User Charges (RUC) exemption on light electric vehicles until they make up two percent of the light vehicle fleet
   9.3. a new RUC exemption for heavy electric vehicles until they make up two percent of the heavy vehicle fleet
   9.4. work across Government and private sector to investigate the bulk purchase of electric vehicles
   9.5. government agencies coordinating activities to support the development and roll-out of public charging infrastructure including providing information and guidance
9.6. $1 million annually for a nation-wide electric vehicle information and promotion campaign

9.7. a contestable fund of up to $6 million per year to encourage and support innovative low emission vehicle projects

9.8. enabling road controlling authorities to allow electric vehicles in bus lanes and high-occupancy vehicle lanes on the State Highway network and local roads

9.9. a review of tax depreciation rates and the method for calculating fringe benefit tax to ensure electric vehicles are not being unfairly disadvantaged

9.10. establishing an electric vehicles leadership group across business, local and central government.

10. The package will address barriers to the uptake of electric vehicles, including the limited supply of models in New Zealand, lack of awareness and misconceptions about electric vehicles, and a lack of widespread public charging infrastructure.

Programme governance

11. We have responsibility for the coordination and delivery of the Programme, with support from the NZTA, EECA, MBIE, IRD and ACC.

12. To fulfil this role, we have convened an Electric Vehicles Programme Working Group (the Working Group) comprising the Ministry of Transport, MBIE, EECA and NZTA to ensure that the implementation of the Electric Vehicles Programme is coordinated, and to drive the delivery of the Programme as a whole. The Working Group is governed by agreed terms of reference (attached) and will work to the Electric Vehicles Programme Steering Group.

13. We will chair an Electric Vehicles Programme Steering Group (the Steering Group) of chief executives or tier two managers from MBIE, EECA and NZTA. The Steering Group will ensure the successful implementation of the Programme by ensuring that the key agencies are appropriately resourced, opportunities for synergy are grasped, and risks are managed.

14. In accordance with principles of good governance, individual agencies will remain accountable for delivering the initiatives for which they are responsible. The lead agencies for each of the measures in the Programme are set out in the attached A3.

15. The Electric Vehicles Programme Leadership Group (the Leadership Group) is not expected to make decisions, but it could:

15.1. provide strategic leadership to the Programme as appropriate

15.2. be a reference panel to test ideas and decisions with before they are implemented

15.3. act as a conduit for information sharing between central and local government, and industry.

Overarching communications and stakeholder engagement approach

16. We are preparing an overarching communications plan for the Programme in consultation with MBIE, EECA and NZTA. The plan will include the key messages for each component of the Programme (these key messages are contained in each of the subsequent sections of this report).
17. It will also identify key deliverables and milestones for stakeholder engagement and communications, including opportunities that could be leveraged (e.g. conferences). We will provide a copy of this communications plan to your office in mid-June.

18. Detailed communications plans will be developed by lead agencies for key milestones and will be referenced in the overarching communications plan.

Regular reporting on implementation progress

19. We propose to report to you monthly during the 2016/17 year. The report will consist of an updated implementation overview A3 (as attached) and a cover memo outlining:

19.1. key achievements for the period
19.2. upcoming deliverables and milestones
19.3. emerging opportunities
19.4. risks and mitigations.

20. We also propose to establish a monthly meeting with you and senior officials from the Ministry of Transport, NZTA, MBIE, and EECA to discuss the implementation of the Programme.

21. Any other matters will be raised with you by exception, either through the relevant agency’s Weekly Report or at officials’ meetings.

Next steps

22. Following your consideration of this paper, we would welcome a discussion with you, together with representatives from NZTA, MBIE, and EECA on the implementation of the Electric Vehicles Programme.

Recommendation

23. The recommendation is that you:

(a) discuss the implementation of the Electric Vehicles Programme with officials.

Yes/No

Senior Adviser

Erin Wynne
Policy Manager, Programme

Withheld under section 9(2)(a) of the Official Information Act 1982

MINISTER’S SIGNATURE:

DATE:
Establishment of an Electric Vehicles Programme Leadership Group

Cabinet decisions

24. On 21 March 2016, Cabinet:

   24.1. agreed that to provide ongoing leadership and coordination for the total government-industry package, a group of seven to eight representatives from industry, local government and relevant government agencies be convened

   24.2. invited you to decide on the terms of reference, membership and administrative arrangements for that group [CAB-16-MIN-0108.01 refers].

Timing of key deliverables and milestones

25. We will develop draft terms of reference, including recommendations about the membership of the Leadership Group, in consultation with key agencies and provide this to you for consideration in the week of 20 June 2016.

26. Subject to your agreement, we will provide you with letters appointing the members of the group in early July and seek to convene the first meeting of the Leadership Group in late July 2016.

27. At this stage, we propose that the Leadership Group meet on a quarterly basis. We will provide secretariat support to the Leadership Group.

Stakeholder communications and engagement

28. The terms of reference will cover communications and engagement matters such as:

   28.1. protocols for informing members of matters relevant to the successful implementation of the Programme

   28.2. the treatment of information and advice provided in-confidence

   28.3. management of conflicts of interest.

29. The following key messages to respond to enquiries about the Leadership Group have been approved by your office:

   - The Ministry of Transport will convene a Leadership Group with up to eight representatives from industry, local government and relevant government agencies.

   - Decisions about the membership of the Leadership Group, and its terms of reference, are still under consideration.

   - People who have demonstrated leadership in this area, and are interested in joining the panel, can contact the Ministry of Transport on 04 439 9000 or info@transport.govt.nz.

   - It is planned that the Leadership Group will be in place in the next few months.
Risks and mitigations

30. Regardless of which parties you appoint to the Leadership Group, there will almost certainly be organisations who do not feel adequately represented. For this reason, we recommend drawing on local government and industry associations in some cases, and encouraging the sector to work through these bodies. This would also help minimise the risk of government being perceived as giving a particular company an advantage over competitors.

31. In cases where particular organisations have shown strong leadership on electric vehicle issues, we would also recommend they be considered for the Leadership Group.

32. The terms of reference will include protocols for dealing with any actual or potential conflicts of interest that members have.

Discussion point

33. We welcome your initial thoughts about the membership of the Leadership Group, and the role it should play.
Extending the RUC exemption for light electric vehicles and introducing an exemption for heavy electric vehicles

Cabinet decisions

34. On 21 March 2016, Cabinet:

RUC exemption for light electric vehicles

34.1. agreed that light electric vehicles be exempt from RUC until they comprise two percent of the light vehicle fleet, which is expected to occur by the end of 2021.

34.2. agreed that the exemption from RUC for light electric vehicles be extended until 31 December 2021 but that the appropriateness of this date, relative to the target of two percent of the fleet, be reviewed in 2019 [CAB-16-MIN-0108.01 refers].

Exemption for heavy electric vehicles

34.3. agreed that the RUC exemption for electric vehicles be extended to electric heavy vehicles, including trolley buses, and that the exemption apply until heavy electric vehicles comprise two percent of the heavy vehicle fleet.

34.4. agreed that the exemption from RUC for heavy electric vehicles be set to end on 31 December 2025, and that this date be reviewed as part of the 2019 review referred to above.

34.5. invited you to issue drafting instructions to the PCO to give effect to the RUC exemptions.

Timing of key deliverables and milestones

35. We are currently working with NZTA to develop drafting instructions, which we aim to issue to PCO by July 2016. This includes instructions for the Orders in Council that will be required to enact the exemptions for light and heavy electric vehicles.

36. Extending the exemption for light electric vehicles does not require an amendment to the RUC Act, and could be implemented by Order in Council before the end of the year.

37. The proposed amendments to the RUC Act for the heavy electric vehicles exemption are expected to be progressed through the Energy Innovation (Electric Vehicles and Other Matters) Bill. We understand from MBIE that the target date for introducing the Bill is October 2016. Once the Bill is passed, an Order in Council exempting heavy electric vehicles from RUC can be put in place.
Stakeholder communications and engagement

38. Heavy vehicle operators are very interested in the RUC exemption for heavy electric vehicles and are already seeking to understand from when the exemption will apply, and what types of vehicle technology will meet the definition of ‘electric vehicles’ for the purposes of the exemption.

39. We have responded directly to some of these enquiries. Both NZTA and EECA have also been given the key messages below to use with operators they engage with regularly on operational matters.

40. The following key messages to respond to enquiries about the RUC exemptions have been approved by your office:

- The RUC exemption for light vehicles is already in place and this will be extended to 2021, or until light electric vehicles make up 2 percent of the light vehicle fleet. The extension of this exemption will be legislated.
- The RUC exemption for electric heavy vehicles also needs to be legislated. This process will start soon and further details will be announced in due course. The RUC exemption for heavy electric vehicles will be in place until 2025 in the first instance.
- The definition of heavy electric vehicle will be one of the matters considered in drafting the legislation and potentially through the select committee process.
- The exemptions aim to encourage New Zealand consumers and businesses to buy electric vehicles as they can contribute to a reduction in transport emissions and greenhouse gases and reduce New Zealand’s reliance on imported fossil fuels.
- Operators of electric light vehicles (such as cars and SUVs) are expected to save around $600 per vehicle per year. While the savings will be significant for individual vehicle operators, the total cost is very small compared to the approximately $4 billion spent each year through the National Land Transport Fund.

Risks and mitigations

41. We are already aware that defining heavy electric vehicles for the purpose of the RUC exemption could be challenging. We are working with NZTA to determine what approach we might take to the definition for the purposes of issuing drafting instructions. We can continue to investigate options for the definition of heavy electric vehicles for the purpose of the RUC exemption after drafting instructions have been issued.

42. The part of the definition in the RUC Act that differentiates a light RUC vehicle from a light electric RUC vehicle (i.e. a RUC vehicle with motive power wholly or partly derived from an external source of electricity) is unlikely to be suitable for differentiating a heavy RUC vehicle from a heavy electric RUC vehicle in the RUC Act.
43. This is because conventional hybrid heavy vehicles (such as the Mitsubishi FUSO Canter Eco Hybrid) could be retrofitted at low cost to enable it to plug-in, but may never actually be charged. Such retrofits would meet the definition of heavy electric vehicles if the definition of *light electric RUC vehicle* is used as a template.

44. In other words, a plug-in hybrid electric vehicle (PHEV) could provide 100 percent electric operation if used well, yet could provide no electric operation at all.

45. If the definition of heavy electric vehicle is left too open, it is likely to result in the number of vehicles meeting the definition reaching the 2 percent of the heavy fleet much earlier than previously anticipated, without achieving any significant benefit in terms of fuel savings or reduced carbon dioxide emissions.

46. We are developing a proposed solution in consultation with the NZTA. Through the drafting instructions, we will attempt to minimise the risk of the perverse outcomes noted above while also leaving the scope of the exemption open for innovative vehicle technologies that use renewable electricity, such as the Wrightspeed plug-in hybrid electric technology. We will provide you with further advice about this matter before issuing drafting instructions.

47. We are not concerned about the definition of *light RUC electric vehicle* because the value of the RUC exemption is lower, and therefore there is less incentive to retrofit. Plug-in electric light vehicles typically use petrol which is subject to fuel excise duty. This means that they have an added incentive to operate on electric power as much as possible. Although there are a small number of light diesel hybrids in use, we are not aware of any instances of these vehicles being converted to plug-in hybrids so as to qualify for the RUC exemption.

Other considerations

48. **NZTA comment:** There are a number of critical dependencies that impact on the work the NZTA needs to do to deliver on its responsibilities identified in the Programme. The most pressing is an agreed definition of both a light and heavy electric vehicle. Without an agreed definition, any enforcement relating to electric vehicles will be ineffective. This will have a significant impact on some of the incentives in the Programme. For example, the ability for electric vehicle users to travel in bus or high occupancy lanes.

49. We are working with NZTA to develop agreed definition of both a light and heavy electric vehicle. We expect to have a proposed position by the end of June 2016.
Investigating the feasibility of joint public-private procurement

Cabinet decisions

50. On 21 March 2016, Cabinet directed MBIE to:

50.1. investigate the feasibility of having joint public and private sector fleet procurement, including preferred administrative arrangements

50.2. report back to the Minister for Economic Development and the Minister of Transport by 30 June 2016 [CAB-16-MIN-0108.01 refers].

Timing of key deliverables and milestones

51. As part of the joint public-private procurement initiative, MBIE’s NZ Government Procurement Branch has initiated project scoping for the feasibility review. Initial scoping will ensure the project is well established, including objectives, scope, project teams and roles, project governance, probity considerations, costs, risks and a timeline for the feasibility review. NZ Government Procurement expects to complete scoping by 10 June 2016.

52. In accordance with Cabinet decisions, NZ Government Procurement will report back to you and the Minister for Economic Development by 30 June 2016. This report back will cover:

52.1. an assessment of the current opportunities for joint public-private procurement to support the proliferation of electric vehicles. Specifically understanding how a procurement partnership will impact demands and/or supply of electric vehicles.

52.2. identification of requirements and criteria to inform the strategy to procure electric vehicles

52.3. recommendations on how best to engage with fleet managers and manufacturers across the private and public sector and best deploy joint procurement

52.4. report on recommendations for administrative arrangements and the mechanism for alignment with the MBIE All-of-Government agreement model.

Stakeholder communications and engagement

53. NZ Government Procurement will lead the drafting of a stakeholder engagement and communications plan for the joint procurement initiative that will sit under the overarching communications plan.

54. The communications plan will reflect our discussion with you on 25 May 2016, and include key messages.
Risks and mitigations

55. There is a risk that the joint public-private procurement initiative will be seen as taking too long. To mitigate, NZ Government Procurement is working with existing All-of-Government contracted suppliers to add their current electric vehicles models to the existing catalogues. This will provide options to meet the immediate needs of government agencies while the wider joint public-private procurement initiative is progressed.

56. There is high potential for conflicts of interest given the overlaps between suppliers and advocacy groups. Probity and transparency will need to be managed effectively.
Supporting the development and roll-out of public charging infrastructure

Cabinet decisions

57. On 21 March 2016, Cabinet:

57.1. noted that NZTA will be supporting the development of public charging infrastructure through clarifying the regulatory framework and providing national information and guidance

57.2. directed NZTA and the Energy Efficiency and Conservation Authority to coordinate their activities in supporting the development of public charging infrastructure [CAB-16-MIN-0108.01 refers].

58. Specifically, the Cabinet paper seeking agreement to the Programme states that NZTA will support the development of public charging infrastructure by:

58.1. clarifying the regulatory framework for charging infrastructure. This includes:

58.1.1. working with local government to develop shared standards and a knowledge base on the best placement of charging infrastructure and minimum infrastructure requirements

58.1.2. ensuring processes to apply for access to the State highway corridor to install charging infrastructure are as streamlined as possible

58.1.3. investigating whether it owns any unused land that could serve as a charging site and the potential to include charging infrastructure at State highway rest stops that are managed by the NZTA

58.1.4. aligning the deployment of charging infrastructure installation and scheduled road works.

58.2. providing national information and guidance for public charging infrastructure. This includes:

58.2.1. providing traffic pattern data to aid with the planning of charging infrastructure placement

58.2.2. developing standards for signage to indicate charging infrastructure or a special vehicle designation to ensure on-street charging infrastructure is reserved for electric vehicles

58.2.3. adding charging infrastructure locations to the journey information it already provides to customers

58.2.4. funding or co-funding enabling research

58.2.5. supporting any shared procurement process for charging infrastructure to maximise economies of scale.

Timing of key deliverables and milestones

59. Preparatory work needs to be done by NZTA, in conjunction with EECA and the Ministry of Transport, to develop national information and guidance for local authorities, private investors and the general public on charging infrastructure.
60. There are a number of issues related to the regulatory framework that must be in place before a full complement of guidance can be produced. It has therefore been proposed that the development of guidance take a staged approach, with more detail being added to the suite of information as things progress.

61. It is anticipated that the end of December 2017 will be the final completion date for national information and guidance, with a supporting regulatory framework in place. The first deliverable, a draft guideline, is due to be completed at the end of September 2016.

**Stakeholder communications and engagement**

62. The NZTA is developing an integrated communications plan and engagement framework, due for immediate implementation. It is working with EECA and the Ministry of Transport on the development of this plan.

63. Proposed key messages to respond to any enquiries about government actions regarding public charging infrastructure are:

- NZTA is working on facilitating the uptake of electric vehicles into the New Zealand fleet.
- Specifically, it is focused on supporting the private sector to provide charging infrastructure.
- National guidance for road controlling authorities and private investors is being developed collaboratively so a consistent, market-led approach to charging station installation can be implemented throughout the country. This guidance will cover matters such as:
  - accessing data to inform planning and decision making, for example current traffic pattern data and future network development plans
  - minimum infrastructure requirements
  - common signage standards
  - a streamlined process for access to state highway corridors.

**Risks and mitigations**

64. As the Programme is market driven, there is considerable pressure from private sector investors to get the foundations in place as soon as possible. Preparatory work therefore needs to be done quickly to facilitate the uptake of electric vehicles into the New Zealand fleet and provide both the legislative and regulatory foundation for the management of electric vehicles on New Zealand roads.
65. There is also uncertainty regarding the safety of Electric Vehicle Supply Equipment (EVSE e.g. charging cables) currently in use, and their compliance with New Zealand electrical safety regulations. Some charging cables that come with used imported vehicles may not comply with New Zealand’s electrical safety requirements.

66. The development of guidance material for electric vehicle buyers and other stakeholders is dependent on clarifying the regulatory requirements for this equipment. This work requires input from Worksafe New Zealand. EECA is currently seeking clarification on this issue with Worksafe and MBIE.
A nation-wide electric vehicle information and promotion campaign

Cabinet decisions

67. On 21 March 2016, Cabinet:

67.1. agreed that EECA deliver an information and promotion campaign for electric vehicles that would be directed at businesses and household consumers

67.2. invited you to request EECA to reprioritise $1 million per annum from its baseline funding from 2016/17 to resource the information and promotion

67.3. noted that MBIE would provide oversight of the information and promotion campaign [CAB-16-MIN-0108.01 refers].

Timing of key deliverables and milestones

68. The first stage of EECA’s information campaign is focused on developing material to address immediate information needs and provide a base from which a broader public and fleet campaign can be built.

69. These resources include charging information, ensuring car dealers are well informed as to the requirements of New Zealand’s electricity system when selling imported electric vehicles with chargers designed for other countries, and developing consistent guidelines for local authorities to use when considering electric vehicle infrastructure requests. The draft guidelines will be shared with your office prior to publication. These resources should be published by the end of September 2016, and will complement the material being developed by NZTA.

70. Supporting material will also be developed for business fleets including charging infrastructure requirements; these should also be available by the end of September 2016.

71. EECA will be working directly with fleets, including providing fleet consultations and supporting at least one fleet day event in 2016 (building on the event you attended in May 2015), and working with MBIE to support the joint procurement initiative.

72. EECA is also sponsoring a range of consumer and fleet electric vehicle events, with an increased focus on public outreach activities (including giving people the electric car driving experience) across the country (April 2017). These include The Wellington Electric Vehicle Symposium in June, a proposed International Electric Vehicle Week in September with the Better NZ Trust, fleet day(s) with Drive Electric (similar to the one you attended in May 2015) and an expanded nationwide electric vehicles road-trip in April with the Better NZ Trust. Further information will be provided to your office once details are confirmed.

73. The objective of this phase is to ensure the buying, driving and charging of an electric vehicle (at home, work or at a public charging station) is a smooth and positive process. This is essential to transition electric vehicles from ‘early adopters’ to the ‘mainstream’.

74. A broader public advertising campaign will start after 2016/17 once basic information is in place, and supporting services are able to respond with authority to requests from the public and fleets, and there is a broader range of vehicles available for ‘mainstream’ consumers to buy.
Appendix 1 – Electric Vehicle Programme implementation

75. EECA is undertaking market research to better understand consumer awareness, attitudes and understanding of terminology. EECA will provide you with an update once it has received the results.

Stakeholder communications and engagement

76. Proposed key messages to respond to any enquiries about the information and promotion campaign are:

- The first stage of the information campaign is focused on resource development to address immediate information needs and provide a base from which a broader public and fleet campaign can be built.
- This campaign is being led by EECA and it will have a community outreach component to it, building on the work that is already occurring with partners at regional and nationwide level.
- EECA’s business team will be working alongside fleets to identify opportunities to transition vehicles to electric, and to take advantage of the joint procurement process.

Risks and mitigations

77. A key risk arises from the lack of clarity regarding the compliance and safety of EVSE (e.g. charging cables), as set out in paragraphs 61 and 62 above.

Other considerations

78. Ministry of Transport comment: We expect that EECA will design a clearer programme of activity with specific milestones for the information and promotion campaign over the coming months. We will update you on progress through our regular monthly reporting.

Discussion point

79. Which opportunities and events would you most like to be involved in (e.g. car launches, opening charging stations, community outreach)?
Contestable fund to encourage and support innovative low emission vehicle projects

Cabinet decisions

80. On 13 April 2016, the Economic Growth and Infrastructure Committee:

80.1. agreed that a contestable fund of up to $6 million per annum be established to co-fund industry and government initiatives aimed at promoting the uptake of electric and other low emission vehicles

80.2. agreed that the overarching principle of the contestable fund be that the fund should encourage innovation and investment to promote, enable, and/or accelerate the uptake of electric and other low emission vehicles into New Zealand, that might otherwise not occur

80.3. agreed a set of guiding principles of the contestable fund

80.4. directed officials to report back to you with a detailed proposal for how the assessment process would be deployed, including an indicative plan for years after 2016/17 and proposals for the role of the leadership group

80.5. agreed that the contestable fund be administered by EECA, with oversight by the Ministry of Transport, MBIE and the Electric Vehicle Programme Leadership Group [EGI-16-MIN-0069 refers].

Timing of key deliverables and milestones

81. EECA, in coordination with MBIE and the Ministry of Transport, is leading the development of the design of the contestable fund. EECA has initiated development of the terms of reference for the fund and expects to complete them by July 2016. A report back to you on the terms of reference is scheduled for July 2016.

82. The intention is that the first funding round would open in August 2016, with the market engagement process and decisions on winning proposals taking approximately four to five months. This means that the first funds may be awarded between December 2016 and February 2017.

Stakeholder communications and engagement

83. A communications and promotion plan for the contestable fund is to be completed in parallel to the terms of reference.

84. Proposed key messages to respond to any enquiries about the contestable fund are:

- The contestable fund is aimed at promoting the uptake of electric and other low emission vehicles.

- The overarching principle of the contestable fund is that the fund should encourage innovation and investment to promote, enable, and/or accelerate the uptake of electric and other low emission vehicles into New Zealand, that might otherwise not occur.
The design of the contestable fund is currently underway, with more detailed information to be made publicly available by the end of July at the earliest.

It is important to think about and scope potential projects, in light of the objective of the fund to encourage and support innovative low emission vehicle projects.

Subsidies for vehicle purchases are outside the fund’s scope.

**Risks and mitigations**

85. *Delays during the design stage:* A number of key questions on the nature of the fund and how it will be implemented are currently unclear. Officials are working at a cross agency level to develop an effective design.

86. *Level of stakeholder response to first funding round:* The first funding round may not get sufficient responses from stakeholders because some worthwhile projects may not fit the fund’s design parameters. Alternatively, EECA may experience oversubscription of unsuitable projects. Officials are considering options to help ensure that the fund’s design and criteria are sufficiently broad so as not unnecessarily preclude worthwhile ideas.

**Discussion points**

87. Is the contestable fund to target low emission vehicle projects that represent both innovation and investment, or will projects be considered if they have at least one of these attributes?

88. EECA has received a number of enquiries from interested stakeholders around the scope of the contestable fund and whether or not it extends to electric ferries or electric bicycle projects. Do you have any views on the scope of the fund and whether it is to be exclusively used for projects related to light and heavy road vehicles?

89. *Ministry of Transport comment:* We recommend that the fund focus on projects to support the uptake of light and heavy electric vehicles, and thereby help achieve the uptake targets set by the Government.
Enabling electric vehicles to access bus and high-occupancy vehicle lanes

Cabinet decisions

90. On 21 March 2016, Cabinet agreed to:

90.1. amend the Land Transport Act 1998 to clearly empower road controlling authorities to make bylaws allowing electric vehicles to use special vehicle lanes

90.2. make amendments to the Land Transport (Road User) Rule 2004, and related provisions in Land Transport Rule: Traffic Control Devices 2004, to enable road controlling authorities to allow electric vehicles access to bus and high occupancy vehicle lanes [CAB-16-MIN-0108.01 refers].

Timing of key deliverables and milestones

91. We expect to develop drafting instructions to give effect to the decision in paragraph 86.1 by July 2016, and issue them to PCO at the same time as drafting instructions for the RUC exemptions. Both sets of amendments will be progressed through the Energy Innovation Bill.

92. We expect to seek your agreement to consult on the draft Rule to give effect to the decision in paragraph 86.2 in August 2016. If you agree, the draft Rule would be out for consultation at the same time that the Energy Innovation Bill is at select committee. This would mean that stakeholders could view the proposed amendments to the Land Transport Act alongside the draft Rule, and therefore make more informed submissions on both matters.

93. Following a three month consultation period on the draft Rule, we will provide you with further advice about the proposed Rule changes, and a final Rule for signing in early 2017. We will provide you with more advice on the proposed timing of Rule changes when we provide you with the draft Rule.

Stakeholder communications and engagement

94. As part of the rule-making process, there needs to be consultation on the draft Rule to enable road controlling authorities to allow electric vehicles access to bus and high occupancy vehicle lanes. We will prepare consultation material to support this process. You will have the opportunity to review the draft Rule and associated material before it is released for consultation.

95. Proposed key messages to respond to any enquiries about enabling electric vehicles to access bus and high-occupancy vehicle lanes are:

- Overseas experience has shown that allowing electric vehicles into transit and bus lanes is a very effective non-financial incentive to encourage people to switch to electric vehicles.

- The Government will need to make changes to Land Transport Rules and the Land Transport Act 1998 to enable the NZTA and local authorities to allow electric vehicles into special vehicle lanes, such as bus and transit lanes.
Appendix 1 – Electric Vehicle Programme implementation

- This process is due to begin shortly and further details, including consultation, will be announced in due course.
- Opening up these special vehicle lanes to electric vehicles will ultimately be a decision for local councils and the New Zealand Transport Agency, in consultation with communities.

Risks and mitigations

96. To mitigate the risk of confusion to road users, we recommend that the Rule process follow the timing of the Energy Innovation Bill, particularly in terms of consultation and enactment.

97. We will need to balance competing interests (for example efficiency of the network, enforcement, and costs) when designing the Rule and Act amendments to give effect to the Government’s decisions. As a first step, we will engage with NZTA and NZ Police to develop the draft Rule amendments and options for balancing competing interests within the regulatory regime.
Review of tax depreciation rates and the method for calculating fringe benefit tax (FBT) for electric vehicles

Cabinet decisions

98. On 21 March 2016, Cabinet:

98.1. directed IRD, in consultation with industry stakeholder groups, to review the depreciation rate and the method used to calculate fringe benefit tax as they relate to electric vehicles

98.2. invited the Minister of Revenue to report on the results of these reviews to you by 31 March 2017 [CAB-16-MIN-0108.01 refers].

Timing of key deliverables and milestones

99. IRD will advise the Minister of Revenue on the results of the reviews by February 2017. The Electric Vehicles Programme Working Group will be informed of the reviews’ findings.

Stakeholder communications and engagement

100. IRD will be seeking information from industry stakeholder groups to determine whether the estimated useful life of electric vehicles is different to the estimates that apply to other motor vehicles. This information will also inform work on how the amount of FBT is calculated where business electric vehicles are used for private purposes.

101. Proposed key messages to respond to any enquiries about the reviews of tax rates applying to electric vehicles include:

- The reviews will consider whether the depreciation rules and the FBT rules are discouraging otherwise sensible investment in electric vehicles.
- The reviews require evidence that will enable estimates of an electric vehicle’s useful life to be calculated.
- If the reviews demonstrate that electric vehicles are being disadvantaged, it could result in changes to put electric vehicles on a level playing field with petrol and diesel vehicles.
- The reviews will be undertaken in accordance with the generic tax policy process, which is a highly consultative process.

Risks and mitigations

102. The industry might argue for concessions to encourage investment in electric vehicles. The Government’s broad-base, low-rate tax policy framework suggests that there is little room for such arguments. Moreover, both the depreciation and fringe benefit rules also use robust analytical frameworks.

103. The generic tax policy process enables open communication between officials and industry. This reduces the risk of surprises.
Appendix 1 – Electric Vehicle Programme implementation

Review ACC levies for plug-in hybrid electric vehicles

Cabinet decisions

104. On 21 March 2016, Cabinet:

104.1. directed officials to work with MBIE to investigate how the ACC levy overcharge by plug-in hybrid electric vehicles (PHEVs) might be addressed, and to report back to Cabinet by 1 October 2016 with recommendations

104.2. agreed that if any changes require amendments to the Accident Compensation Act 2001, these can be considered as part of the Energy Innovation Bill [CAB-16-MIN-0108.01 refers].

Timing of key deliverables and milestones

105. At this stage, officials consider that regulatory options to address this issue can be progressed under existing legislation.

106. With our support, MBIE and ACC will review the way PHEVs are levied. Together, we will keep you and the Minister for ACC informed of this work and on any proposed changes to the way PHEVs are charged ACC levies.

107. In accordance with the Accident Compensation Act 2001, ACC is required to consult on any proposed changes to the way PHEVs are levied. ACC intends to undertake this consultation as part of its wider levy consultation on 2017/18 and 2018/19 levies later this year (likely to be held over September or October 2016).

108. Any proposed changes to the way PHEVs are levied will be considered by the Economic Growth and Infrastructure Committee later this year. This may be considered in conjunction with decisions sought on levy rates and other levy proposals for the 2017/18 and 2018/19 levy periods. Any changes to the way PHEVs are levied would be effective from 1 July 2017, and would apply for the 2017/18 and 2018/19 levy periods.

Stakeholder communications and engagement

109. As noted above, formal consultation is required on any proposed changes to levies, including levies paid for PHEVs. Cabinet would note or agree to the consultation prior to it occurring.

110. Proposed key messages to respond to any enquiries about the review of ACC levies for plug-in hybrid electric vehicles are:

- Officials are looking into the way PHEVs are levied, to ensure owners of these vehicles pay fair ACC levies.

- After considering feasible options, any prospective changes to the way these vehicles are levied would be consulted on as part of the next ACC levy consultation later this year.
Risks and mitigations

111. There are sufficient regulation making powers to create new differentiated levies to progress options that could address this issue (i.e. differentiated levies can be applied to different categories of vehicles). This means legislative amendments would not be required. However, the feasibility of options may be limited at this time due to operational constraints. Operational implications will be considered as the investigation into options to address the ACC overcharge progresses.
### ROAD USER CHARGES (EXEMPTION PERIOD FOR LIGHT ELECTRIC RUC VEHICLES) ORDER 2016

**Reason for this briefing**
This briefing provides you with a Cabinet paper for consideration by Cabinet Legislation Committee (LEG), on extending the road user charges (RUC) exemption period for light electric RUC vehicles.

**Action required**
Sign and lodge the attached LEG paper with Cabinet Office.

**Deadline**
10am on Thursday 11 August 2016.

**Reason for deadline**
To ensure the Order is lodged in time for LEG consideration on Wednesday 17 August 2016.

### Contact for telephone discussion (if required)

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<tr>
<th>Name</th>
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<th>Direct line</th>
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<th>First contact</th>
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<td></td>
<td>Adviser</td>
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**MINISTER’S COMMENTS:**
Withheld under section 9(2)(a) of the Official Information Act 1982

**Date:** 5 August 2016

**Briefing number:** OC04270

**Attention:** Hon Simon Bridges (Minister of Transport)

**Security level:** In-Confidence

### Minister of Transport’s office actions

- [ ] Noted
- [ ] Seen
- [ ] Approved
- [ ] Needs change
- [ ] Referred to
- [ ] Withdrawn
- [ ] Not seen by Minister
- [ ] Overtaken by events
Purpose of briefing

1. This briefing provides you with a Cabinet paper on extending the road user charges (RUC) exemption period for light electric RUC vehicles.

2. The briefing recommends that you sign the attached Cabinet paper recommending that the Cabinet Legislation Committee (LEG) authorise the submission of the Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2016 (the proposed Order) to the Executive Council.

Cabinet has agreed to extend the RUC exemption period for light electric RUC vehicles

3. On 21 March 2016, as part of the electric vehicles package, Cabinet agreed to extend the RUC exemption for light electric RUC vehicles until they comprise two percent of the light vehicle fleet, which is expected to occur by December 2021.

Legal mechanism for amending Order in Council

4. Section 37 of the Road User Charges Act 2012 provides for the Governor-General to specify the period during which RUC is not payable in respect of light electric RUC vehicles, through an Order in Council.

5. An order made under Section 37 must specify the date on which the RUC exemption expires but may be amended to provide for a later date.

6. Currently, the Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2012 specifies an end date of 30 June 2020. In accordance with Cabinet’s decision, the proposed Order will extend the RUC exemption period for light electric RUC vehicles from 30 June 2020 to 31 December 2021.

Recommendations

7. The recommendations are that you:

   (a) **sign** the attached Cabinet paper

   (b) **lodge** the attached Cabinet paper with Cabinet Office by 11 August 2016

   

__**Adviser**__

Withheld under section 9(2)(a) of the Official Information Act 1982

Erin Wynne
Policy Manager Programme

MINISTER’S SIGNATURE:

DATE: 9/8/16
### AIDE MEMOIRE: CABINET PAPER

<table>
<thead>
<tr>
<th>Title</th>
<th>Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2016</th>
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<tbody>
<tr>
<td>Committee</td>
<td>Cabinet Legislation Committee</td>
</tr>
<tr>
<td>Issues</td>
<td>Authorise the submission of the Order to the Executive Council</td>
</tr>
<tr>
<td>Ministerial Consultation</td>
<td>None required</td>
</tr>
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</table>

**Talking points**

- I propose that the Cabinet Legislation Committee authorise the submission of the Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2016 (the proposed Order) to Executive Council.

- Road user charges (RUC) are payable on all vehicles with a gross vehicle mass of more than 3,500 kilograms, or vehicles with motive power that is not wholly derived from petrol.

- In 2009, as a first step in encouraging the uptake of electric vehicles, the Government decided that light electric vehicles would be exempt from RUC starting from 1 October 2009 until 2013.

- Following a review of the RUC exemption, Cabinet agreed on 16 April 2012 that the RUC exemption for light electric RUC vehicles be extended until 30 June 2020.

- On 21 March 2016, as part of the electric vehicles package, Cabinet agreed to rescind their earlier decision and instead extend RUC exemption for light electric RUC vehicles until they comprise two percent of the light vehicle fleet, which is expected to occur by December 2021.

- The proposed Order will amend the Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2012 and extend the RUC exemption period for light electric RUC vehicles from 30 June 2020 to 31 December 2021.

- The work on extending the RUC exemption to heavy electric vehicles is being progressed separately through the Energy Innovation Bill.
RO​AD USER CHARGES (EXEMPTION PERIOD FOR LIGHT ELECTRIC RUC VEHICLES) ORDER 2016

Proposal

1. I propose that the Cabinet Legislation Committee authorise the submission of the Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2016 (the proposed Order) to Executive Council.

Policy background

2. Transport accounts for around 17 percent of New Zealand’s greenhouse gas emissions. It was the second largest consumer of energy in 2014 and more than 99 percent of transport energy is oil-based. Projections indicate that by 2020, transport emissions will be 58 percent above 1990 levels.

3. Electric vehicles (EVs) are part of a response that looks to adopt new technologies as a means to transition to a low carbon economy without compromising individual mobility or economic growth. EVs are a technology that is well suited to New Zealand. They represent an opportunity to leverage New Zealand’s abundance of renewable electricity to reduce transport emissions.

4. On 16 April 2012, Cabinet agreed that light electric road user charges (RUC) vehicles be exempt from paying RUC until 30 June 2020 (CAB Min (12) 12/6A refers).

5. On 21 March 2016, as part of the EVs package, Cabinet agreed to rescind the decision referred to in paragraph 4 and instead extend RUC exemption for light electric RUC vehicles until they comprise two percent of the light vehicle fleet, which is expected to occur by December 2021. The appropriateness of this date, relative to the target of two percent of the fleet, is to be reviewed in 2019 (CAB-16-MIN-0108.01 refers).

6. In accordance with Cabinet’s decision, the proposed Order will amend the Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2012 and extend the RUC exemption period for light electric RUC vehicles from 30 June 2020 to 31 December 2021.

Certification by Parliamentary Counsel

7. The proposed Order has been certified by Parliamentary Counsel as being in order for submission to Cabinet.
Regulatory Impact Analysis

8. A regulatory impact analysis was prepared in accordance with the necessary requirements and submitted at the time that Cabinet’s approval of the policy related to the proposed Order was sought.

Timing and 28 day rule

9. The proposed Order is timed to come into force on 22 September 2016. No waiver of the 28 day rule is sought.

Compliance

10. The proposed Order complies with the Legislation Advisory Committee Guidelines: Guidelines on Process and Content of Legislation, a publication by the Legislation Advisory Committee.

11. The proposed Order raises no issues with respect to the principles of the Treaty of Waitangi, the principles and guidelines set out in the Privacy Act 1933, or international standards and obligations. It is also consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Publicity

12. The proposed Order will be notified in the Gazette and the Ministry of Transport will arrange appropriate publicity about the extension of the RUC exemption.

Consultation

13. The following government agencies were consulted on the policy related to the proposed Order – the Energy Efficiency and Conservation Authority, Inland Revenue Department, Ministry of Business, Innovation and Employment, Ministry for the Environment, Ministry of Foreign Affairs and Trade, NZ Transport Agency and the Treasury. The NZ Transport Agency was consulted on the content of the proposed Order.

14. The Department of Prime Minister and Cabinet has been informed.
Recommendations

15. The Minister of Transport recommends that the Committee:

1. note that on 21 March 2016, Cabinet agreed to extend the road user charges exemption for light electric road user charges vehicles until they comprise two percent of the light vehicle fleet, which is expected to occur by December 2021

2. authorise the submission to the Executive Council of the Road User Charges (Exemption Period for Light Electric RUC Vehicles) Order 2016.

Hon Simon Bridges
Minister of Transport
Dated: __________________________
# IMPLEMENTATION OPTIONS FOR ALLOWING ELECTRIC VEHICLES ACCESS TO BUS AND HIGH OCCUPANCY VEHICLE LANES

**Reason for this briefing**
To provide you with implementation options for allowing electric vehicles (EVs) access to bus and high occupancy vehicle lanes.

**Action required**
- Note the amendments required to the Land Transport Act 1998.
- Consider the recommended implementation option for the amendments to the Rules.
- Agree to officials proactively engaging with road controlling authorities.

**Deadline**
Monday, 15 August 2016.

**Reason for deadline**
To enable the Ministry of Transport to contribute to drafting instructions on amendments to the Land Transport Act 1998 for the Energy Innovation (Electric Vehicles and Other Matters) Bill (the Bill), and to prepare drafting instructions on the amendments to the Rules. The Ministry of Business Innovation and Employment (MBIE) intends to finalise instructions for the Bill by the end of August.

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**Contact for telephone discussion (if required)**

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<tr>
<td>[Redacted]</td>
<td>Adviser, Land Transport Safety</td>
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<tr>
<td>Erin Wynne</td>
<td>Policy Manager, Programme</td>
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**MINISTER’S COMMENTS:**

Withheld under section 9(2)(a) of the Official Information Act 1982

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**Date:** 09 August 2016  
**Briefing number:** OC04188

**Attention:** Hon Simon Bridges (Minister of Transport)  
**Security level:** In-Confidence

**Minister of Transport’s office actions**

- Noted
- Signed
- Approved
- Needs change
- Referred to
- Withdrawn
- Not seen by Minister
- Overtaken by events
Purpose of briefing

1. The purpose of this briefing is to provide you with implementation options to give effect to Cabinet’s decision to enable EVs access to bus and high occupancy vehicle lanes.\(^1\) We would like you to consider the options and agree to our preferred approach.

2. The options involve amendments to the Land Transport Act 1998 (the Act), and Land Transport Rules.\(^2\)

Background

3. Allowing EVs access to bus and high occupancy vehicle lanes is described overseas as a relatively low cost incentive to encourage uptake of EVs. Overseas experience (in particular Norway) notes that drivers perceive this measure as having higher value than other common EV incentives (for more information see Appendix 1).\(^3\)

Cabinet’s decision

4. On 21 March 2016, as part of the EVs Programme, Cabinet agreed to:
   4.1. amend the Land Transport Act 1998 to clearly empower road controlling authorities to make bylaws allowing electric vehicles to use special vehicle lanes
   4.2. make amendments to the Land Transport (Road User) Rule 2004, and related provisions in the Land Transport Rule: Traffic Control Devices 2004, to enable road controlling authorities (RCAs) to allow electric vehicles access to bus and high occupancy vehicle lanes [CAB-16-MIN-0108.01 refers].

The Government’s aim

5. On 5 May 2016, you publicly announced the Government’s Electric Vehicles Programme (the Programme) which aims to increase the uptake of EVs in New Zealand. The Programme also aims to develop the EV market in New Zealand and the supporting infrastructure for that market.

Media and stakeholder reaction to this particular initiative

6. Since the 5 May 2016 announcement of the Programme, there has been a mixed response from media and stakeholder groups to the initiative to enable EVs access to bus and high occupancy vehicle lanes. The main concern relates to the increased exposure to EVs (particularly heavy EVs) by vulnerable road users (such as cyclists). Other concerns with this initiative related to the impacts on other transport objectives, such as network efficiency, public transport reliability, and general congestion as EV numbers grow.

7. In informal discussions with RCAs, there have been mixed levels of interest in allowing EVs access to bus and high occupancy vehicle lanes. In particular, Auckland Transport is unlikely to allow EVs into most of these lanes, and it has been looking at other ways to promote EV uptake. One initiative it has raised is providing priority parking and charging infrastructure to support EVs within Auckland Transport managed car park buildings.

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\(^1\) Otherwise known as transit lanes — lanes where a vehicle must have more than a certain number of occupants as specified by a sign.
\(^3\) \text{http://www.thelocal.no/20150506/norway-strips-electric-cars-of-ke.}
Legislative and rule changes

8. Section 22AB(1)(r) of the Act is the bylaw-making power empowering RCAs to give specified classes of vehicle access to bus and transit lanes. It will be amended to clarify that it empowers RCAs to make bylaws relating to a broader range of vehicle classes like EVs, cyclists, mopeds, and motorcycles.

9. There is a possible ambiguity in this section as to whether the references to "buses, taxis" and "vehicles of other specified classes" are separate or, whether the interpretation of "vehicles of other specified classes" is informed by the reference to buses and taxis and can only include passenger service vehicles. We want to ensure that inserting a specific reference to EVs does not impact on the interpretation of the existing wording in this section. Parliamentary Counsel Office (PCO) has advised that an amendment of this nature can be done within the ambit of Energy Innovation (Electric Vehicles and Other Matters) Bill (the Bill).

10. The other changes required to give effect to this policy are:

10.1. amendments to the definitions of "bus lane" and "transit lane", as set out in clause 1.6 of the Road User Rule. The current definitions include information about who may use the relevant lanes, such as buses, cycles, mopeds, and motorcycles. Adding EVs to these lists means RCAs can make bylaws giving EVs access to relevant lanes.

10.2. amendments to the Land Transport Rule: Traffic Control Devices 2004 (Traffic Control Devices Rule) to provide for markings and signage relating to EVs and when they have access to relevant lanes.

10.3. the addition of a new definition in the Act for "electric vehicle" so that the changes to the Rules can be effective (currently there is no legal definition of "electric vehicle"). A definition of "electric vehicle" will prevent unintended scope creep, for instance, the inclusion of conventional hybrids.

There are two implementation options to give effect to Cabinet's decision

11. There are two implementation options:

11.1. Option one: amend legislation\(^5\) to allow EVs automatic right of access to all bus and high occupancy vehicle lanes, unless an RCA makes a bylaw to exclude them (an opt-out approach).

11.2. Option two: amend legislation to allow EVs access to bus and high occupancy vehicle lanes only if an RCA makes a bylaw to include them (an opt-in approach).

12. We have assessed the implementation options on the extent to which they are:

12.1. efficient from an RCA perspective

12.2. effective as an incentive for greater uptake of EVs

12.3. consistent with Cabinet's direction.

\(^4\) Please also see paragraph 33, which addresses the need for the definition for enforcement purposes.

\(^5\) Legislation refers to both Act and Rule changes.
Option one is inconsistent with Cabinet’s direction

13. Option one is to amend legislation to allow EVs automatic right of access to all relevant lanes unless an RCA makes a bylaw to exclude them (an opt-out approach).

14. This option is not consistent with Cabinet’s direction to ‘enable road controlling authorities to allow EVs access to bus and high occupancy vehicle lanes’. Rather than enabling RCAs to allow EVs access to the relevant lanes, it automatically provides EVs with access. RCAs would have to make bylaws if they wanted to prevent EVs from using the relevant lanes.

15. Without further direction from Cabinet, PCO is unlikely to draft changes that reflect option one because it goes beyond what Cabinet envisaged. If option one were to be pursued, then further Cabinet direction would be required.

16. Even so, option one could be seen as the simplest way to ensure EV access to bus and high occupancy vehicle lanes.

17. Some risks associated with this option are:

17.1. As EV numbers are predicted to grow, they may impede the flow of other traffic in some high occupancy vehicle lanes and create delays, as well as compromise safety in some bus lanes

17.2. RCAs, the public, and advocacy groups may feel that RCAs have not been given the opportunity to properly assess how suitable each bus and high occupancy vehicle lane is before the amendments in the respective legislation are implemented.

18. It is difficult to anticipate the costs to RCAs of this option, as scenarios will differ between RCAs depending on how many relevant lanes the RCA wants to allow EVs access into:

18.1. An RCA with a low number of relevant lanes would incur higher costs as it would need to:

18.1.1. go through the bylaw process to exclude EVs from relevant lanes, and

18.1.2. purchase and erect signage showing that EVs did not have access to relevant lanes.

18.2. However, if an RCA wanted to enable EVs to use most, or all of their respective lanes, the cost would be small. The RCA would not need to make bylaws to exclude EVs, or address signage.

Option two – preferred option

19. Our preferred option is option two, which is to amend legislation to only allow EVs access to bus and high occupancy vehicle lanes if an RCA makes a bylaw to include them (an opt-in approach).

20. This option is consistent with Cabinet’s direction to ‘enable road controlling authorities to allow EVs access to bus and high occupancy vehicle lanes’. In this scenario, EVs are only given access to relevant lanes if RCAs choose to make bylaws to that effect.

21. Option two is also in line with what you have said publicly and in ministerial correspondence.
22. This option provides RCAs with the flexibility to:

22.1. choose which bus and high occupancy vehicle lanes EVs can access, within their own respective timeframes

22.2. manage conflicting transport priorities along a corridor, including EV promotion and network efficiency.

23. A risk associated with this option is that few RCAs may make bylaws to allow EVs to access relevant lanes.

24. Again, it is difficult to anticipate the costs of this option to RCAs, as scenarios will differ between RCAs depending on how many relevant lanes the RCA wants to allow EVs access into:

24.1. An RCA with a high number of relevant lanes would incur higher costs than with option one as it would need to:

24.1.1. go through the bylaw process to allow EVs to use relevant lanes, and

24.1.2. purchase and erect signage showing that EVs have access to relevant lanes.

24.2. However, if an RCA found EVs unsuitable for most or all of its respective lanes, the costs may be small, as the RCA would not need to make bylaws to allow EVs access, or to address signage.

Planned timing for legislative amendments

Act amendments

25. The amendments to the Act will be a part of the Bill. MBIE is the Government department responsible for the Bill. As you are Minister of Energy and Resources, you will have oversight of this. We are required to finalise drafting instructions for MBIE on the amendments to the Act by mid-August, to fit with the timing of the Bill’s planned introduction (scheduled for LEG and Cabinet approval for introduction in October 2016).

Process for Rule-making changes

26. We are currently working with the New Zealand Transport Agency (NZTA) on the process for amending the relevant Rules, including timeframes. We envisage the Rule changes will be ready to come into effect when the Bill is scheduled to pass in May 2017.

27. We are planning to make the proposed Rule changes under section 152A of the Act, which would require you to make a recommendation to the Governor-General. This seems the appropriate rule-making vehicle, given that the Rule changes are tightly linked to the policy being implemented through the Bill. This approach means that Rule consultation is not required, as relevant consultation should be undertaken as part of the Bill’s process.

28. To make it clear that the Bill is implementing this proposal, we are proposing to MBIE that the Bill’s explanatory note includes clear information about the reason the EV definition is being added. The reason for this is that it is part of the EV access initiative with specific information about enabling access to bus and high occupancy vehicle lanes. This will ensure that the public has the opportunity to comment on this matter.
29. The Ministry of Transport (the Ministry) and the NZTA will work together to ensure that relevant stakeholders are informed about the inclusion of this policy initiative in the Bill, so they have the opportunity to make submissions.

30. Once the Act and Rule changes commence, RCAs will be able to make bylaws to allow EVs access to designated bus and high occupancy vehicle lanes. The bylaw process involves consultation with the community — the length and structure of this process varies between RCAs.

Other issues

Enforcement of EVs in bus and high occupancy vehicle lanes

31. For enforcement of this initiative, some jurisdictions use a decal or sticker system, or coloured number plates to provide a visual cue for enforcement. However, the simplest way to enforce this initiative is by using the Motor Vehicle Register (MVR).  

32. RCAs enforce bus and high occupancy vehicle lanes by recording number plates of vehicles that have not been granted access to the relevant lane. The MVR is used to provide details of the registered owner of the vehicle so a fine can be sent to them. Whether a fine is issued depends on the respective RCA.

33. If EVs are allowed access into bus and high occupancy vehicle lanes, enforcement of this initiative will require a definition of “electric vehicle” in the Act and the Road User Rule. We intend to use a similar definition that will be used for the Road User Charges (RUC) exemptions, i.e. vehicles where the motive power is wholly or partly derived from an external source of electricity.

34. In order to enforce both the bus and high occupancy vehicle lane changes, it will be necessary to have an accurate record of vehicles that do and do not meet the “electric vehicle” definition. The MVR is where information should be recorded about whether vehicles are EVs or not.

35. The MVR currently records a large range of information about vehicles, including motive power and fuel sources. At present however, it does not distinguish between electric motive power generated externally for example, plug-in hybrid vehicles (PHEVs) and other vehicles that generate their own electric power for example, Toyota Prius. Changes to the MVR will therefore be required to distinguish between EVs as they will be defined in the legislation and other vehicles that may have electricity as a source of power.

NZTA advice on MVR changes

36. The changes to the MVR could be complicated and expensive. NZTA advise that it would not commit resources to changing the MVR until final confirmed requirements are known (for example, once the Bill is enacted). Information is recorded into and extracted from the MVR directly and indirectly by other systems, and by a number of users including vehicle manufacturers, vehicle distributors and dealers, the vehicle certification and inspection industry, and enforcement agencies. The MVR changes need to be well planned, and advance notice provided to all users detailing the exact changes so they can make any necessary changes to their systems.

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6 The Motor Vehicle Register (MVR) administered by the NZTA is the official register of all vehicles in New Zealand. The MVR holds information about vehicles used on New Zealand roads, and the persons responsible for the vehicle's use.
37. Based on high level discussions with business process and IT staff, NZTA advise that it expects at least six months will be needed to update its business processes and IT systems once final confirmed requirements are known. Indicative cost estimates suggest the cost could be in the range of at least $500,000 to $1,000,000. It is expected that these funds will be found from within the existing National Land Transport Programme. These time and cost estimates are based on what is currently known of the changes required. The largest piece of work is in making IT system changes to the MVR.

38. The time and costs estimates are based on what the NZTA believe are changes to the MVR of comparable complexity to the proposed EV changes. A detailed design of the specific changes required has not yet been done.

39. Once the changes to the MVR have been made and existing EVs on the register are recorded appropriately, it will then be possible to query the number plate of a vehicle in the MVR to determine if it is legally an EV. Offences already exist for the unauthorised use of bus and high occupancy vehicle lanes, so non-EVs would be committing an offence if they used these lanes.

**Bus lanes on the Northern Motorway**

40. NZTA advise that the Northern Motorway bus lane is not suitable for EV access. This is due to health and safety concerns. There is no direct access between the motorway and the bus way, except for one small portion. EVs will need to access the lane at the bus stations, which could be problematic and may cause congestion and safety issues for bus traffic, car traffic, and pedestrians.

41. If EVs are not segregated for this particular section of the Northern Motorway, there is an increased safety risk for pedestrians. The interchanges are currently configured for a circulating path for buses. Costs are likely to be significant and impractical for reconfiguring the interchanges to separate pedestrians from EVs.

42. There are also part-time shoulder bus lanes on the motorway, which would not be suitable for EVs. This is because there is a speed differential between the shoulder and other lanes. Adding EVs to the mix will cause congestion issues and increase the chances of nose to tail traffic accidents. Furthermore, the shoulders are used as emergency stopping lanes and for incident response when the network is congested. NZTA’s view is that these functions would be severely compromised if EV access were allowed.

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1 The circulating path for buses is as shown in Figure 1 – it allows the bus to approach the station, circulate around the station for passenger pick-up/drop-off, and leave the station, without the need for reversing – similar to the way a roundabout works.

2 Shoulder bus lanes are where the road shoulder is set up for part time use by buses (indicated by signs), but reverts to a standard emergency shoulder at other times. They are not marked as a bus lane, nor are they designed to provide the level of service of a travelling lane, so bus operators know to travel at a slower speed on them.
Proactive engagement with stakeholders

43. We met with Auckland Transport on Thursday 28 July 2016 to discuss the issues/opportunities relating to the EV access initiative. The issues they identified were negative impacts on the efficiency of the network (with some bus lanes already over capacity), safety concerns for bus drivers and other road users, and the inability of RCAs to enforce the policy effectively.

44. Further, Auckland Transport voiced concerns over the definition of an EV in any legislation, in particular the inclusion of PHEVs in that definition. In its view, PHEVs with very little range on their electric battery could be receiving a benefit that is not justified given the purpose of the Programme. However, Auckland Transport is open to the possibility of trials of EVs in bus and high occupancy vehicle lanes.

45. To gain further understanding on the issues raised within this briefing, we recommend that Ministry officials should proactively engage with RCAs before the Bill's Select Committee process. This will help address any concerns RCAs have, and provide them with an opportunity to provide their perspective on this initiative before making a formal submission. In particular, we would like to continue to engage with Auckland Transport.
Recommendations

46. The recommendations are that you:

(a) agree to our preferred implementation option below to give effect to Cabinet's decision to allow EVs access to bus and high occupancy vehicle lanes:
   i. Option two: amend legislation to allow EVs access to bus and high occupancy vehicle lanes only if an RCA makes a bylaw to include them (an opt-in approach)  Yes/No

(b) agree that Ministry of Transport officials should proactively engage with road controlling authorities and in particular Auckland Transport  Yes/No

(c) note that the Ministry of Transport will contribute to drafting instructions for the Energy Innovation (Electric Vehicles and Other Matters) Bill on amendments to the Land Transport Act 1998

Adviser, Land Transport Safety

Erin Wynne
Policy Manager, Programme

MINISTER'S SIGNATURE:  Official Information Act 1982

DATE:
Appendix 1: Use of bus and high occupancy vehicle lanes in overseas jurisdictions

1. A range of incentives, other than direct subsidies, have been used in other countries as part of programmes to promote deployment of EVs. Of these other measures, access by EVs to bus and high occupancy vehicle lanes have been reported to have the highest value in incentivising EV ownership.\(^9\) Access to such lanes enables EV owners to travel more quickly than vehicles otherwise held up in traffic, so gives a direct advantage to the owner. However, this advantage diminishes with EV uptake due to increased levels of congestion.

2. We have provided some information from overseas jurisdictions on this initiative below.

**Norway**

3. Norway has a number of EV policies (both financial and non-financial) to increase the uptake of EVs. One of these initiatives is to allow certain types of EVs in bus lanes.

4. In 2003, temporary permission was granted to trial the EV in bus lane initiative. This initiative allowed for battery powered EVs (BEVs) to use bus lanes in Oslo and Akershus. Two years later in 2005, BEVs were granted access to all bus lanes. From 2015, a limitation was put on this initiative. Bus lanes that are heavily congested during rush hour periods require two or more passengers in the BEV before they are allowed access. There are also some shorter bus lanes in Oslo where BEVs are not allowed, due to the time delays that sharing the lane would create.

**British Columbia**

5. One of the key elements in British Columbia’s ‘On the Move: 10-year transportation plan’\(^10\) is to take measures to reduce environmental impacts in the transportation sector.

6. In British Columbia, drivers who make an environmentally friendly decision by deciding to buy an EV are rewarded, and allowing them into high occupancy vehicle lanes is one way to do that, regardless of the number of passengers. By allowing EVs to use these lanes, EV owners can reduce their time in traffic and avoid running out of charge when they are travelling greater distances or through busy traffic areas.

7. Eligible vehicles include BEVs or PHEVs. After confirming vehicle eligibility, an application must be made for a decal and a permit. A decal is required because many newer EVs are hard to distinguish from conventional vehicles, as manufacturers use similar body frames for both types of vehicles. The decal is free for applicants, and does not expire.

8. To assist enforcement, a decal must be displayed on the vehicle’s rear bumper or window. The decal also indicates to other drivers that the EV is eligible to be in the lane.

9. Amendments to the legislation in British Columbia provide access to every high occupancy vehicle lane by authorised EVs, unless a sign is posted indicating otherwise. The regulation allows the province to post a sign where it is necessary to prohibit EVs from using a lane in order to maintain the lane’s level of service. Similar to option one described earlier in the briefing, if a high occupancy vehicle lane is under the jurisdiction of a municipality, the local government will determine if EVs can use the lanes. If not authorised, a sign will be posted.

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\(^10\) This was released in 2014.
EXTENDING ROAD USER CHARGES EXEMPTION TO HEAVY ELECTRIC VEHICLES

Reason for this briefing
Cabinet has agreed to extend road user charges exemption to heavy electric vehicles. This briefing sets out the Ministry's proposed approach to implement this policy and notes the associated issues.

Action required
Note the Ministry's proposed approach to extending road user charges exemption to heavy electric vehicles.

Deadline
19 August 2016.

Reason for deadline
To enable the Ministry to contribute to drafting instructions for the Energy Innovation Bill (the Bill). The Ministry of Business, Innovation and Employment intends to finalise instructions for the Bill by the end of August 2016.

Contact for telephone discussion (if required)

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<th>Name</th>
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<td>Adviser</td>
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<tr>
<td>Erin Wynne</td>
<td>Policy Manager Programme</td>
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MINISTER'S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 11 August 2016

Briefing number: OC04244

Attention: Hon Simon Bridges (Minister of Transport)

Security level: In-Confidence

Minister of Transport's office actions

☐ Noted  ☐ Seen  ☐ Approved

☐ Needs change  ☐ Referred to  ☐ Overtaken by events

☐ Withdrawn  ☐ Not seen by Minister  ☐
Purpose of report

1. This briefing sets out the Ministry’s proposed approach to extending the road user charges (RUC) exemption to heavy electric vehicles and notes the associated issues.

Cabinet decisions on electric vehicles road user charges exemptions

2. On 21 March 2016, as part of the electric vehicles package, Cabinet agreed:

2.1. to extend the RUC exemption for light electric vehicles until they comprise two percent of the light vehicle fleet, which is expected to occur by 31 December 2021

2.2. that the RUC exemption for light electric vehicles be extended to heavy electric vehicles, including trolley buses, until heavy electric vehicles comprise two percent of the heavy vehicle fleet or 31 December 2025.

There is currently no definition of a heavy electric RUC vehicle in the Road User Charges Act 2012

3. The Road User Charges Act 2012 (the Act) defines a light electric RUC vehicle as a RUC vehicle with a gross vehicle mass of 3,500 kilograms or less, and motive power wholly or partly derived from an external source of electricity.

4. There is currently no definition of a heavy electric RUC vehicle in the Act. In order to extend the RUC exemption to heavy electric vehicles, the Act will need to be amended to include such a definition.

Options for extending the RUC exemption to heavy electric RUC vehicles

Option One: Mirror the current definition of light electric RUC vehicles

5. This option would mirror the current definition of light electric RUC vehicle to cover vehicles with a gross vehicle mass over 3,500 kilograms.

6. Under this option, the definition for a heavy electric RUC vehicle would be:

“A RUC vehicle with a gross vehicle mass of more than 3,500 kilograms, and with motive power wholly or partly derived from an external source of electricity.”

7. This definition is relatively broad and would enable vehicles with a range of different technologies, including Wrightspeed and other forms of plug-in hybrid technology, to benefit from the RUC exemption.

Risks of including ‘partly derived’ in the definition

8. One of the risks from adopting a broad definition is that it could lead to uptake of vehicles that have some ability to run on electricity, but are predominantly powered by fossil fuels.

9. This risk is greater for heavy vehicles than light vehicles due to the much greater RUC savings. This creates an incentive for operators to game the system.
10. Operators could modify new or existing vehicles in ways that meet the letter of the law but do not enable the vehicle to be propelled by electric power to any significant degree. For example, it may be possible for an operator to fit a low powered auxiliary electric motor and small battery pack to a vehicle, which would not result in any significant reduction in fossil fuel usage.

11. One possible solution is to introduce performance requirements, such as minimum travelling distance or battery capacity, that need to be met before a vehicle is classified as a heavy electric RUC vehicle.

12. However, stakeholders have expressed concern that any performance targets that are set would likely be arbitrary, and could exclude vehicles that are genuinely capable of being powered by electricity from the RUC exemption.

13. The Ministry and NZ Transport Agency largely share this concern. There would be significant challenges in both defining a performance standard that a vehicle “partly derived from an external source of electricity” should meet and in verifying that a vehicle meets the standard.

14. Currently, the Ministry is not aware of any available electric vehicle technology that would allow operators to modify their vehicles cheaply in order to meet the definition of a heavy electric RUC vehicle. Any modifications would likely require significant investment and operators would want to ensure the modifications provide a real benefit in terms of fuel saving, even when the RUC exemption has lapsed.

Risks relating to heavy trailers

15. Under RUC legislation, heavy trucks and the trailers they tow are both defined as heavy RUC vehicles and must carry separate RUC licences.

16. Option One could make trailers eligible for the exemption if they were being towed by a plug-in hybrid or fully electric truck (which would also be exempt). The total possible RUC saving would be in the order of $50,000 per annum for a truck and trailer covering 100,000 kilometres a year. However, allowing the exemption of trailers would not have any benefits in reduced fuel consumption.

17. Furthermore, trucks and trailers are readily interchangeable and it would not be possible to determine the motive power of the towing vehicle at the time when an operator applies for a RUC exemption. It would not be practicable either to administer the exemption on a trip by trip basis, or to require that exempt trailers only be towed by heavy electric RUC vehicles.

18. The NZ Transport Agency considers they will not be able to grant an exemption for heavy trailers because operators would not be able to confirm the motive power of towing vehicles at the time of applying for the RUC exemption.

19. Legal has advised that due to interpretational differences of ‘trailers’ in different Acts, it would not be practical to explicitly exclude heavy trailers in the definition of heavy electric RUC vehicle.

Option Two: Extend the RUC exemption to include only heavy vehicles wholly powered by electricity

20. This option would allow only heavy vehicles whose motive power is wholly derived from electricity to qualify for the RUC exemption.
Risks

21. The major risk with this option is that the definition is too restrictive and excludes plug-in hybrid vehicles that could contribute to reduced emissions. Plug-in hybrids such as the Wrightspeed technology would not qualify under this definition.

22. With current available technology, fully electric heavy vehicles are likely to remain uneconomic or impractical for most operators, even if exempt from RUC. Our view is that this option is unlikely to be effective in encouraging uptake of heavy electric vehicles in the short term.

The Ministry preferred approach is Option One

23. The Ministry’s preferred approach is to mirror the current definition for light electric RUC vehicles to cover vehicles with a gross vehicle mass of over 3,500 kilograms, but exclude heavy trailers from eligibility for the RUC exemption.

24. The RUC exemption for heavy vehicles work programme is currently being progressed through the Energy Innovation Bill. In order to meet the strict timeline for the Bill’s introduction, the Ministry was only able to give limited consideration to the definition of heavy electric RUC vehicles. For this reason, the proposed definition for heavy electric RUC vehicles is similar to the definition for light electric RUC vehicles.

25. There will be an opportunity for the Ministry to review the definition in light of submissions received during the Select Committee process. We will provide you with further advice should we consider that an amendment to the definition is needed following industry feedback.

26. As part of this work, we have had discussions with the Road Transport Forum and the Bus and Coach Association, who are generally comfortable with the recommended approach. The Road Transport Forum is aware that heavy trailers are excluded from the heavy RUC exemption. We also had an initial phone conversation with Auckland Transport who did not raise any concerns with regards to the RUC exemption.

Implementation timeframe for the heavy RUC exemption

27. The NZ Transport Agency has advised that they would require between six to nine months from when the Energy Innovation Bill is passed, before the heavy RUC exemption could be put in place. This is to allow for sufficient time for necessary operational and administrative changes such as amending the motor vehicle registry system.

28. The Energy Innovation Bill is expected to be passed in May 2017. Once the Bill is passed, the RUC exemption could then be extended to heavy electric RUC vehicles through an Order in Council.
Recommendations

29. The recommendations are that you:

(a) note the Ministry's proposed definition for a heavy electric RUC vehicle is "A RUC vehicle with a gross vehicle mass of more than 3,500 kilograms, and with motive power wholly or partly derived from an external source of electricity"

(b) note that heavy trailers are unlikely to meet the definition of a heavy electric RUC vehicle.

Withheld under section 9(2)(a) of the Official Information Act 1982

Adviser

Erin Wynne
Policy Manager, Programme

MINISTER'S SIGNATURE:

DATE: 18/8/16
Hon Simon Bridges  
MINISTER OF ENERGY AND RESOURCES  
MINISTER OF TRANSPORT

Investment focus for the second round of the Low Emission Vehicles Contestable Fund

Ministry of Transport reference: OC04671

Purpose: This paper seeks your agreement to retain the current investment focus for the second round of the Low Emission Vehicles Contestable Fund (LEVCF) which opens in early 2017.

Key message:

- The investment focus of the LEVCF signals the types of projects sought and is reviewed periodically between rounds to ensure that investment is phased over the life of the fund in a way that matches New Zealand’s progress towards electric vehicles (EVs).

- The investment focus for this year was on demonstration projects that could be implemented relatively quickly to showcase and popularise electric and other LEV technologies in the New Zealand environment to accelerate uptake.

- The LEVCF is designed to be flexible over time in order to build a cohesive portfolio of projects, while providing a robust and independent assessment process to ensure only high quality projects are funded.

- We propose to retain this year’s investment focus because it remains fit for purpose and is a good way to continue to showcase and popularise electric and other LEV technologies in high profile ways.

Recommendations: Agree that this year’s investment focus for the LEVCF be retained for the second round, which opens in early 2017.

Deadline: Requires your approval before 13 December 2016.

Approved

Deadline: Requires your approval before 13 December 2016.
Consultation: MBIE (Energy Markets Policy) has been consulted and agrees with the recommendation.

EECA contact: Elizabeth Yeaman –

MOT contact: 
Withheld under section 9(2)(a) of the Official Information Act 1982

Ian Horne
Acting Chief Executive, EECA

Glen-Marie Burns
Manager, People and Environment, Ministry of Transport

Hon Simon Bridges
Minister of Energy and Resources
Minister of Transport
Background

1. The LEVCF was one of the initiatives announced by you on 5 May 2016 as part of the Electric Vehicles Programme.

2. The overarching principle of the LEVCF is that it should encourage innovation and investment to promote, enable and accelerate the uptake of electric and other LEV technologies in New Zealand that might not otherwise occur.

3. Up to $4 million was available through the first round of the LEVCF. Up to $6 million is available in future years. Grants are made on a co-funding basis, with up to 50% of the costs of a project able to be grant funded.

4. The objectives of the LEVCF are to:
   a. Contribute to getting New Zealand ready for mainstream uptake of electric and other LEVs by:
      * Ensuring there is a range of EVs on the road to provide experience and familiarity, and to stimulate supply of vehicles, servicing and charging infrastructure;
      * Enabling New Zealanders to learn about, and experience EVs; and
      * Ensuring charging and servicing infrastructure is in place before or when it is needed.
   b. Encourage business, communities and government to develop innovative responses to barriers and opportunities around EVs;
   c. Make the most of New Zealand’s renewable electricity advantage, and take advantage of opportunities to reduce carbon emissions and improve air quality;
   d. Encourage high-tech innovation in the systems around EVs.

Current investment focus

5. The purpose of the investment focus is to signal to applicants the types of projects sought as priorities for each round of the LEVCF. The investment focus is stated at the commencement of each funding round.

6. Over the life of the LEVCF, the investment focus can be reassessed and changed before each round commences. This ensures that a cohesive portfolio of projects is funded across different demonstration and deployment projects, geographical areas, and types of technologies.

7. The investment focus for the first round of funding (in 2016/17) was on demonstration projects that could be implemented relatively quickly to showcase and popularise electric and other LEV technologies in the New Zealand environment to accelerate uptake.
8. Demonstration projects are expected to produce the following outcomes:
   a. Lessons learned on how to overcome challenges to implementing new LEV technologies novel to New Zealand;
   b. Build investor and consumer confidence in the viability of these technologies;
   c. Identify opportunities to scale-up demonstration models and deployment; and
   d. Increasing the visibility of EVs and associated technology and infrastructure.

9. Examples of the types of projects fitting within the current investment focus include:¹
   a. The creation and promotion of branded tourism routes using EVs;
   b. Demonstrations of vehicle types not currently used in New Zealand, such as electric buses utilising new technologies and electric trucks in commercial fleets; and
   c. Car share schemes that promote EVs and new ways of addressing transport demands.

Advice on the investment focus for the second round

10. EECA, MOT and MBIE jointly propose that the investment focus for the second round of funding be the same as that used for the first round. This is because a continued focus on demonstration projects is a good way to continue to showcase and popularise electric and other LEV technologies in high profile ways.

11. We consider it preferable to avoid changing the investment focus too frequently to allow potential applicants sufficient opportunity to develop their proposals. This is particularly relevant for proposals that are of significant scale and complexity.

12. The first funding round attracted significant interest, with 85 applications received. The assessment panel identified a number of promising proposals that were unsuccessful. These applicants could make strong contenders in a subsequent round of funding under the same investment focus, following refinement of their original proposals. Potential applicants who missed out on submitting proposals in the first round could also apply.

13. We see no risk in retaining the current investment focus for the second round of funding.

Consultation

14. MBIE has been consulted on this briefing note, and agrees with the recommendation made.

¹ These examples were published in the first round Request for Proposals (RFP) document.
Next steps

15. The conditionally approved projects from the first funding round of the LEVCF will be announced by you on or around 7 December (EECA’s briefing on 2 December refers).

16. Once you have made a decision about the investment focus for the second round, we will liaise with your office about suitable timing for this to be publicly communicated via an update on EECA’s website and an email newsletter to subscribers before the end of 2016. (This may coincide with the announcement of the successful first round projects).

17. The second round is proposed to open in early 2017. The EECA Board will confirm the timeframe for the second round at its meeting on 13 December 2016.

18. We will update your office on the timeframe for the second round once it has been confirmed and will liaise with your office on any future announcement opportunities.
Joining the international EV Government Fleet Declaration

**Reason for this briefing**
You have asked for advice on joining the recently announced “Government Fleet Declaration”, under which eight countries have committed to increasing the number of EVs in their government fleets.

**Action required**
This briefing note is for your information and requires no specific action.

**Deadline**
None.

**Reason for deadline**

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**Contact for telephone discussion (if required)**

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<td>Principal Adviser</td>
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<td>Glen-Marie Burns</td>
<td>Manager, People and Environment</td>
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**MINISTER’S COMMENTS:**
Withheld under section 9(2)(a) of the Official Information Act 1982

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**Date:** 9 December 2016  
**Briefing number:** OC04683  
**Attention:** Hon Simon Bridges  
**Security level:** In confidence

**Minister of Transport’s office actions**

- [ ] Noted  
- [ ] Seen  
- [ ] Approved

- [ ] Needs change  
- [ ] Referred to

- [ ] Withdrawn  
- [ ] Not seen by Minister  
- [ ] Overtaken by events
Purpose of report

1. Following the recent COP22 Climate change talks in Morocco, eight countries - Canada, China, France, Japan, Norway, Sweden, the UK and the US – signed a Government Fleet Declaration, pledging to increase the number of electric vehicles (EVs) in their government fleets. The voluntary commitment taken by these countries aims to encourage other governments and non-state actors to transition to low-carbon transport.

2. You have asked for a paper from the Ministry providing an overview of the Government Fleet Declaration, including obligations and commitments, and how New Zealand would go about joining if we wished to be a party to the declaration.

Overview

3. The Government Fleet Declaration was entered into by countries which are party to the Electric Vehicles Initiative (EVI) of the Clean Energy Ministerial (CEM). The CEM is a high-level global forum to promote policies and programs that advance clean energy technology, to share lessons learned and best practices, and to encourage the transition to a global clean energy economy.

4. Joining the CEM may bring some benefits, but has funding and resource implications. The Ministry, in conjunction with the Ministry of Business, Innovation and Employment (MBIE) and the Ministry of Foreign Affairs and Trade, has been considering the merits of joining. We have not yet reached a firm view and will advise you further on this in the New Year.

5. Although the eight current parties to the Government Fleet Declaration are CEM parties, it is an open document, and countries which are not CEM members are invited to become additional signatories. New Zealand could accede to the Declaration independently of (or prior to) any decision to join the CEM.

6. We are discussing with MBIE the benefits and implications of acceding to the Declaration, and anticipate that we can provide firmer advice on this in February 2017.

MBIE’s views on joining the Clean Energy Ministerial

7. The global energy and transport landscapes are changing dramatically. There are now multiple organisations competing for relevance in the transition to a lower carbon future.

8. We understand that MBIE Energy Markets Policy is undertaking a review of New Zealand’s international energy engagements to ensure that the Government’s engagements align with New Zealand’s strategic objectives. One emerging organisation that potentially appeals to New Zealand is the CEM and its sub-group, the EVI. The EVI conducts cooperative activities that support the design and implementation of domestic EV deployment policies and programmes. It does so through knowledge and policy collaboration.

9. Joining the CEM would require New Zealand to actively participate in two, or lead one, CEM Initiative (the EVI is one such initiative). Participating in the EVI would require the following commitments to be made:

   • Leading at least one, or actively participating in two of the CEM initiatives
   • Financial support of a minimum of US$25,000 per annum (EVI only)
   • Regular attendance at semi-annual Advisory Board meetings
• Identification of a Representative, who would attend the meetings, vote on EVI Advisory Board decisions, and facilitate their country’s participation

• Identification of a Senior Representative – a Director-General or equivalent level person with overall responsibility for co-ordination between their country’s participation in the EVI and domestic EV programmes and policies.

10. MBIE Energy Markets advises that it does not see any value in participating in the other initiatives under the CEM. Generally, the initiatives are related to the development of renewable electricity systems and the deployment of smart grid technologies such as smart meters. MBIE feels that the investment of resources in the other initiatives of the CEM would be of little or no benefit to the New Zealand energy sector.

11. Going forward, the Ministry and MBIE plan to take an NZ Inc. approach to ensure we are closely aligned on energy and transport issues internationally. Part of this work includes evaluating the CEM and EVI sub-group.

12. We are considering participating in the next EVI Advisory Board meeting in April 2017 to better assess the potential value of membership. The Ministry and MBIE would like the opportunity to report back to you on our thinking around international engagement following that meeting.

Commitments under the Government Fleet Declaration

13. Under the Government Fleet Declaration, government signatories:

• note their commitment to cut down on carbon and air pollutants emissions by accelerating the introduction of low-emission vehicles, including electric vehicles, in their own fleets

• encourage non-state actors to echo their commitment and spearhead a short-term shift towards clean fleets

• call on the sustained efforts of various organisations to mobilise and highlight the voluntary commitments of non-state actors towards clean fleets.

14. Highlights of the specific statements made by each of the eight countries which acceded to the Declaration are set out in the Appendix.

Does New Zealand’s existing commitment to EV uptake align with the Government Fleet Declaration?

15. The EV Programme contains a comprehensive package of measures to support wider uptake of EVs. Specific public fleet procurement and public/private fleet procurement initiatives are included. The primary focus is on increasing the availability, and where possible reducing the cost, of EVs to public sector purchasers.

16. This policy framework is consistent with the Government’s approach to many areas of business and consumer activity, which is to provide support, facilitation and information to encourage market participants to make decisions which will bring economic, social and environmental benefits.

17. This approach appears to be similar to that taken by Canada and the United States. Canada’s statement in the Government Fleet Declaration focuses on general objectives, rather than specific regulations or incentives. The approach described by the United States seems similar to the Government procurement initiatives underway in New Zealand.
18. However, the approach taken by other signatories is different. As noted above, other signatories typically have existing packages of regulations and incentives, some specifically targeted at the Government sector, which they set out as their commitment to the Government Fleet Declaration. This is a different framework from that taken in New Zealand.

19. Careful consideration would need to be given as to whether New Zealand’s approach to electric vehicle uptake would generally align with that of other parties to the Declaration. This, along with procedural matters around accession, will form the basis of our report back to you in February 2017.

Consultation

20. The MBIE Energy Markets Policy team has been consulted in the preparation of this briefing note and agrees with the contents.

Next steps

21. In February 2017 we will provide you with advice on acceding to the Government Fleet Declaration.

22. Following April 2017 we will provide you with advice on joining the CEM.
**Appendix – specific commitments of signatory countries**

Highlights of the statements made by each country party to the Government Fleet Declaration (published along with the Declaration) are set out below. These appear to be statements of existing commitments, under domestic law or policy, rather than new commitments made for the purposes of the Declaration.

<table>
<thead>
<tr>
<th>Country</th>
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<tr>
<td>Canada</td>
<td>&quot;... a portion of these [emission] reductions will be achieved through ... the use of electric vehicles in our fleets as well as building the requisite charging infrastructure. We will also work with Provincial and Territorial partners to encourage all levels of government to deploy lower emitting vehicles ...&quot;</td>
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<td>China</td>
<td>&quot;... the minimum percentage [of new energy vehicles] increased for municipal and regional organs to 20% in 2015 and to 30% in 2016 and will subsequently gradually increase annually thereafter.&quot;</td>
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<td>France</td>
<td>&quot;the French State and its public bodies are committed to introducing a minimum share of 50% of vehicles with low emissions of CO2 and air pollutants ... local authorities are subject to the same requirement, with a minimum threshold set at 20% .... All new buses and coaches that shall be acquired for public transport services from 2025 onwards must also be low emission vehicles.&quot;</td>
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<td>Japan</td>
<td>&quot;... that Japanese government is making every effort to ensure that, by 2030, all government vehicles will be next-generation vehicles (including hybrid, electric, plug-in hybrid, fuel cell, clean diesel and compressed natural gas vehicle vehicles), except in cases where no alternative next-generation vehicles exist.&quot;</td>
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<td>Norway</td>
<td>&quot;The high proportion of electric vehicles has been spurred by a number of economic and other incentives; for electric vehicles there is no purchase tax, no VAT, reduced annual fee and reduced fringe benefit tax for electric cars. In addition electric vehicles have free passage on toll roads, access to public transport lanes and free passage on ferries connecting national roads.&quot;</td>
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<td>Sweden</td>
<td>&quot;Apart from general incentives, promoting environmental-friendly and electric vehicles, the Swedish government has launched particular incentives directed towards governmental fleets. One example is that governmental agencies are forced to consider the environmental aspect in the procurement of vehicles, by purchasing electric vehicles or by using biofuels. Another example is a recently launched subsidy for electric buses used in public transport: Public transport agencies will receive up to 700 000 SEK for each electric bus and up to 350 000 SEK for each plug in hybrid bus [approximately NZD$108,000 and NZD$54,000 respectively].&quot;</td>
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<td>United Kingdom</td>
<td>The Government of the United Kingdom (UK) has committed over £600 million in the period 2015-2020 to support nearly all cars and vans being zero emission by 2050. The UK’s statement acceding to the Declaration notes the following points:</td>
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<td>• a £5 million public sector ultra-low emission vehicles (ULEV) readiness programme is bringing 300 vehicles into the public sector fleet and supporting the installation of appropriate recharging infrastructure</td>
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<td>• the £40 million Go Ultra Low City scheme is supporting 12 local authorities to increase the uptake of ULEVs</td>
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<td>• 3 exemplar cities have committed to increase their uptake of ULEVs by 200</td>
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- A £7.5 million workplace recharging scheme will significantly increase the number of recharging points.
- Around 30 fuel cell electric vehicles are being trialled by public bodies under the £11 million Hydrogen for Transport Advancement Project.
- The Government is undertaking a review of its Buying Standards for vehicles.

| United States | “The US Federal government has entered into a new partnership with state and local governments ... [aggregating] demand to lower purchase costs, promote electric vehicle innovation and expand national electric vehicle infrastructure. Twenty-four state and local governments ... commitments account for over 2,500 new electric vehicles in 2017 ...” |
Withheld under section 9(2)(a) of the Official Information Act 1982

To:
Private Secretary (Transport)
Private Secretary (Economic Development)

From:
(Ministry of Transport)
(Ministry of Business, Innovation and Employment)

Date:
25 January 2017

Subject:
Electric Vehicles – draft letter to Government agency chief executives

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<th>Ministry of Transport OC Number</th>
<th>MBIE Tracking number</th>
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Purpose of this aide memoire

1. This Aide Memoire attaches a draft letter, intended to be sent by the Minister of Economic Development to the Chief Executives of:
   - All Departments/Ministries
   - All Crown entities (including DHBs)
   - All SOEs (including Mixed Ownership companies)
   - New Zealand Defence Force
   - New Zealand Police
   This has been prepared in response to your email request of 17 January 2016.

2. The draft letter notes the new availability of electric vehicles and the two options for purchase, either from the catalogue at the prices already set out, or by participating in an aggregated demand process. MBIE contact details are included.

3. It also notes the benefits to the agencies of EVs – lower running costs, including the 30 cents per litre petrol equivalent, and the opportunity for the agency to show environmental leadership.

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<th>Ministry of Transport contact:</th>
<th>Ministry of Business, Innovation and Employment contact:</th>
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<tr>
<td>[Name], Principal Adviser, People &amp; Environment</td>
<td>[Name], AOG Procurement Manager, New Zealand Government Procurement</td>
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Withheld under section 9(2)(a) of the Official Information Act 1982
Dear

New opportunities to buy electric vehicles

I am writing to encourage you to consider whether some of your fleet vehicles could be transitioned to electric vehicles (EVs). This is an opportunity for your agency to show environmental leadership, as well as benefiting from the lower running costs of EVs—calculated to be equivalent to buying petrol for 30 cents per litre.

The Electric Vehicle Programme, announced by me in May 2016, introduces a range of initiatives to encourage the uptake of EVs in New Zealand with the aim of helping New Zealand’s vehicle fleet move towards a lower carbon future.

With 80% of New Zealand’s electricity generated by renewable resources, a move from petrol and diesel to low emission transport is a natural evolution. Last year 30 of New Zealand’s leading businesses, including Air New Zealand, Mercury, and Westpac, committed to converting 30% of their fleet to EVs by the end of 2019. The cheapest new EV on the market has an estimated range on a single charge of 200 kilometres.

EVs offer a way to leverage greater value from New Zealand’s renewable electricity supply and reduce transport greenhouse gas emissions, without compromising individual mobility or economic growth. EVs include both motor vehicles powered solely by electric batteries as well as plug-in hybrid electric vehicles that operate on a combination of externally charged batteries, along with a petrol or diesel motor (PHEVs).

The package of measures approved by Cabinet includes:

- A national target of 2% of the vehicle fleet being electric by the end of 2021.
- Road User Charges exemptions – for both light electric vehicles and heavy electric vehicles, until EVs reach 2% of those categories.
- A contestable fund of up to $6 million per year to support innovative private and local government sector projects which will encourage the uptake of electric vehicles. You may have seen recent media coverage showing how some of the successful applicants are changing their fleets to electric vehicles.
- The Government is also working to address the financial, infrastructure and regulatory barriers to electric vehicle ownership, and clarifying the regulations for vehicle charging infrastructure.

To support these initiatives New Zealand Government Procurement has:

- Made 15 models of electric vehicles available on the All-of-Government (AoG) catalogue. This significantly expands the number of electric vehicles models which government agencies can purchase.
• Extended the existing All-of-Government (AoG) Vehicle Agreement to provide for an open panel of EV providers. This means that as additional models of EVs become available, agencies can access them through the AoG contract.

The AoG Vehicles contract secures EVs for agencies at discounted prices. Even lower prices are expected to be achieved when public sector and private sector demand is periodically aggregated. The first aggregated tranche is being assembled in 2017.

Agencies already participating in the AoG Vehicles contract can access catalogue information and current pricing on the New Zealand Government Procurement website. For information on how to sign up to the contract, access the catalogue of EVs, or participate in the forthcoming aggregated tranche, contact vehicles.coe@mbie.govt.nz.

These options give you a tangible and achievable way for your agency to show leadership in this important change to the New Zealand vehicle fleet.

Yours sincerely

Hon Simon Bridges

Minister for Economic Development

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ENERGY INNOVATION (ELECTRIC VEHICLES AND OTHER MATTERS) AMENDMENT BILL

Officials’ Report to Commerce Select Committee

16 March 2017
Energy Markets Policy
Energy and Resource Markets Branch
Ministry of Business, Innovation and Employment
PO Box 1473
Wellington
New Zealand
http://www.mbie.govt.nz
The Chair
Commerce Committee

1. This is the officials’ report on the Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill (the Bill). It is in two parts:

2. Part A discusses the main issues comprising:
   - Issues raised in response to the changes to energy levies for use by the Energy Efficiency and Conservation Authority (EECA), including changes to improve the operation and administration of those levies, which in summary are:
     - whether it is appropriate to levy fund EECA’s activities
     - the need for more accountability and transparency requirements, and
     - issues around the collection of the gas levy under section 23 of the Energy (Fuels, Levies, and References) Act 1989.
   - Issues raised in response to changes to implement measures to encourage the uptake of electric vehicles (EVs), which in summary are:
     - that allowing EVs into special vehicle lanes would have an adverse impact on public transport
     - that if EVs were allowed into special vehicle lanes, it would be difficult to enforce against misuse
     - that the two per cent cap for the proposed new exemption for heavy EVs from road user charges (RUC) is too low and does not provide sufficient certainty, and
     - concern that the proposed definition of a heavy electric RUC vehicle is too narrow and open to abuse.
   - Issues raised in response to the changes to clarify how electricity industry legislation applies to secondary networks, which in summary are:
     - concerns about unintended consequences in terms of the application, and
     - the interaction with the Electricity Act 1992.
   - Other issues raised, which in summary are:
     - concern that there are no provisions relating to the status of EV chargers under the Electricity Act, and
     - the need for a wider review of electricity industry legislation.

3. Part B is a clause-by-clause analysis of submissions and changes recommended by officials in response.

4. The Bill was introduced to the House on 27 October 2016 and referred to the Commerce Committee after its first reading on 8 November 2016. The Committee received 40 written submissions, and 11 oral submissions. A table of submitters is included in Part B of this report. In summary, in the responses:
   - 15 submissions (37.5 per cent) supported the Bill without proposing any significant changes (8
had minor suggestions).

- Nine submitters (22.5 per cent) supported the Bill if significant amendments were made—six suggested changes to the secondary network amendment, two to the energy levy amendments, two to the new RUC exemption power, two to the special vehicle lanes amendment, and one suggested the addition of further clauses relating to EVs.

- 16 submitters (40 per cent) either only indicated support or opposition to particular parts of the Bill (summarised below), or had no clear position (eight submitters).
  - In terms of opposition, one did not support the energy levy changes, one did not support the measures to encourage the uptake of EVs, one did not support the new RUC exemption power, and four did not support the special vehicle lane amendment.
  - In terms of support, one supported the special vehicle lane amendments, and one (who opposed the special vehicle lane amendment) supported the new RUC exemption power.

5. Of the 40 submissions, 14 were from associations or advocacy groups, 11 were from individuals, eight were from businesses, four were from other interested parties, and three from local government/road controlling authorities.

6. The 14 associations or advocacy groups consisted of:
  - five associations or groups from the energy industry (Electricity Engineers Association, Electricity Networks Association, Electricity Retailers Association of NZ, Major Electricity Users Group and Major Gas Users Group)
  - five associations representing vehicle users and suppliers (Automobile Association, Bus and Coach Association, Motor Industry Association, Motor Trade Association and NZ Caravan Association)
  - two bodies representing local government and/or road controlling authorities (Local Government NZ, and the Road Controlling Authorities Forum)
  - BusinessNZ, and
  - Te Rūnanga – the statutory representative tribal body of Ngāi Tahu Whānui.

7. Of the eight businesses, three were electricity generator-retailers, and there was one of each of the following: electricity retailer, electricity distributor/EV charger provider, liquid fuel (petrol/diesel) retailer, EV charger provider, and a low emissions vehicle developer.

8. The local government/road controlling authority bodies were from Auckland, Waikato, and Wellington.

9. The other interested parties were: Auckland Regional Public Health Service (ARPHS), Flip the Fleet, Nelson Transport Strategy Group (Nelsust), and Utilities Disputes (the approved electricity and gas dispute resolution scheme).

10. The Regulations Review Committee (RRC) recommended that the Commerce Committee consider amending the Bill in relation to the levy regulation-making powers and the new Road User Charges (RUC) exemption power.

11. Officials provided advice on the recommendations for the Commerce Committee’s consideration on 9 March. Some amendments in response to the third RRC recommendation have been included in this departmental report.
Recommendations

Part A recommendations

12. Officials are recommending the following changes to the Bill in relation to issues discussed in Part A:

13. To improve a road controlling authority’s ability to enforce the correct use of special vehicle lanes, officials recommend:

   • amending section 145 of the *Land Transport Act 1998* to permit an image taken by approved vehicle surveillance equipment to be evidence of the unauthorised use of a special vehicle lane.

14. The recommendation we make in response to the RRC’s letter is as follows:

   • The following criterion be added in relation to the regulation-making powers in proposed section 37A:
     
     o A regulation can only be made for the purpose of encouraging and supporting the uptake of EVs.
     
     o The initial RUC exemption should expire no later than the date agreed by Cabinet of 31 December 2025, and any subsequent exemption should have an expiry date of no more than five years.
Part B recommendations

15. We recommend changes to the Bill in Part B as follows:

**Departmental submissions**

- Item 354 – permit an image taken by approved vehicle surveillance equipment to be evidence of the unauthorised use of a special vehicle lane

**In response to other submissions**

- Item 133 – recommend that some amendments are considered to clause 7 to clarify that it is not intended to apply to a typical household landlord.

Jamie Kerr
Manager, Energy Markets Policy

Energy and Resource Markets

Ministry of Business, Innovation and Employment
Part A: Main issues

16. Part A addresses the following:

- Energy levies – issues raised in response to the changes to energy levies for use by the Energy Efficiency and Conservation Authority (EECA), including changes to improve the operation and administration of those levies.

- EV measures – issues raised in response to changes to implement measures to encourage the uptake of EVs, and responses to specific questions the Commerce Committee had.

- Secondary networks – issues raised in response to the changes to clarify how electricity industry legislation applies to secondary networks.

- Other issues raised.

- Regulations Review Committee advice.

Energy levies (clauses 3-6 and 8-15)

17. The changes to energy levies implemented by the Bill are:

- amending the purpose of three energy levies to enable EECA to use funding from the levies for activities it undertakes to meet its statutory function¹, which is to encourage, promote, and support energy efficiency, energy conservation, and the use of renewable sources of energy

- adding a new annual consultation requirement to the use of the gas levy and the petroleum and energy fuel monitoring levy (PEFML) under the Energy (Fuels, Levies, and References) Act that mirrors the existing requirement for the use of the electricity industry levy under the Electricity Industry Act 2010, and

- improving the operation and administration of the three levies.

18. The main issues raised in relation to the changes to energy levies are below:

Whether it is appropriate to levy fund EECA’s activities

19. Four submitters were principally opposed to the use of levies to fund EECA’s activities. The submitters were: BusinessNZ, the Major Electricity Users Group (MEUG), the Major Gas Users Group (MGUG), and the Motor Industry Association (MIA). The Electricity Retailers Association of NZ (ERANZ) noted that it had taken a pragmatic approach to supporting the levy changes, but that it agreed with BusinessNZ in principle.

20. Submitters arguing this point noted their preference for funding of public-good type services delivered by EECA to come from general taxation, which they argued has the following benefits:

- All taxpayers contributing and signals the strategic priority of the expenditure.

- Highly cost effective as uses existing tax collection.

- Relatively stable and predictable in comparison to a levy.

- Funding decisions would be subject to Treasury scrutiny, increasing EECA’s accountability and efficiency.

¹ Under the Energy Efficiency and Conservation Act 2000
21. BusinessNZ also commented that the proposed funding arrangements fail to comply with
government best practice funding policy guidelines (notably The Treasury’s), as well as take account
of some of the best practice coming out of the Australian Productivity Commission.

22. All four submitters argue that EECA’s activities were defined as public goods because they are carried
out to protect the wider public interest – the benefit is to all New Zealanders, not just selective
(private) groups or particular sectors of the economy. Further, if they were not public good activities,
then they must provide private benefits, and should therefore be funded through charges (for
example, on a on a fee-for-service basis).

23. The submitters want most of EECA’s costs to be met by general taxation.

Officials’ comment

24. Services delivered by Crown entities range from being purely for private benefit (i.e. licensing) where
a charge (fee) is more appropriate, to full public benefit where general taxation is more appropriate.

25. In between are activities that can be appropriately funded by levies on a defined group of users. The
Treasury’s guidelines on public sector charging recognise that there is a spectrum of activities (noting
that pure public-goods are rare), describe the characteristics of each, and then focus on guidance for
the setting charges for services (not on levy design).

26. Under the funding arrangement implemented by this Bill, EECA will still receive funding from general
taxation (currently just over half of total funding), with the remainder coming from the three energy
levies. The total amount recovered by levies (currently up to $17.5m) can only be increased through
the annual Budget process, which is subject to scrutiny by Treasury.

27. EECA can undertake a range of activities to meet its statutory function, set out in the Energy
Efficiency and Conservation Act 2000, to encourage, promote, and support energy efficiency, energy
conservation, and the use of renewable sources of energy.

28. Levy funded activities will not necessarily involve subsidies or incentives (which can result in private
benefit). The Bill requires EECA to consult annually with levy payers on the use of levy funding for
activities on its work programme. EECA will then report to the Minister of Energy and Resources on
that consultation, which will include advice on the proportions of each levy it proposes to use.

29. The expectation is that use of a particular levy for an activity will be justified by EECA clearly
articulating in its consultation the link between those groups being levied and whether they are
either the beneficiaries, or the ‘causers’ of the need for the activity.

The need for more accountability and transparency requirements

30. A group of submitters (six in total) are concerned that there are not enough requirements in relation
to accountability and transparency placed on EECA’s use of levy funds.

31. The Electricity Engineers’ Association (EEA) and Trustpower are concerned that the changes do not
provide enough protection against EECA using levy funding for costs outside its mandate (including
unrelated administration costs). Both suggested additional wording to the relevant clauses.

32. BusinessNZ, MEUG, MIA and Trustpower all want specific requirements added to the annual
consultation requirement to address concerns about:

2 To date EECA has only ever consulted on and drawn down $13m annually to fund its electricity efficiency work
programme.
• cross-subsidisation of activities between levy payers (i.e. using levy money for activities irrelevant to the levy payers or activities that have private benefit.)

• under and over recovery of levy funding across years

• the need for more detailed reporting on outcomes achieved (or not), and

• the need to identify parties that receive payments from a levy funded activity.

Officials’ comment

33. EECA is already subject to the public sector framework for accountability and transparency, including regarding the release of information (e.g. the Official Information Act 1982).

34. All of the costs that EECA incurs must relate to its mandate, which is its statutory function. This requirement is set out in the annual Estimates of Appropriations (which outlines expenses and capital expenditure the Government plans to incur).

35. As a Crown entity, EECA has statutory obligations to account for any differences between the planned and actual delivery of outputs. For example, EECA must set out its outputs in an annual Statement of Performance Expectations (SPE), which is then reported on quarterly to the Minister or Energy and Resources, and in its Annual Report.

36. Officials are of the view that these current reporting obligations, along with the additional expectation set out by Cabinet regarding EECA’s levy consultation, are adequate to ensure accountability and transparency. Cabinet has agreed that EECA’s annual consultation will include:

• the programmes it intends to initiate or continue from previous years

• who it intends to target with these programmes, and the outcomes they propose to achieve through those programmes

• the link between those groups being levied and whether they are either the beneficiaries, or the ‘causers’ of the need for the programme, and

• the total levy funding proposed and the proposed proportion of that funding that will come from each of the three fuel types.

37. Once it has consulted, EECA will make a recommendation to the Minister of Energy and Resources, who will then make final decisions on the levy funding (with any changes to the overall amount of levy funding subject to the Budget process). EECA must also report on and publish its work programme annually, including how levy funding was allocated.

38. This consultation approach provides transparency in terms of any potential cross-subsidisation because EECA will have to demonstrate a logical link between its specific programmes and the levy or levies it proposes to fund them with.

39. Officials are of the view that the above expectations, the legislative requirement for EECA to consult and present the Minister with feedback, and expectations from levy payers and other interested parties will provide enough assurance that cross-subsidisation will be minimal and/or unintentional. The changes were designed to enable the relative contributions of each of the three levies to “broadly align” with EECA’s work programme, not to have to apply a strict legal test to the use of a particular levy. The design aims to minimise administrative complexity and cost.

40. Further, officials consider that providing too much prescription in the legislation will not allow consultation processes to evolve over time to remain effective and meaningful.
41. Any under or over recovery of levy funding will need to be reported by EECA each year to enable the levy rate for the following year to be set correctly. At minimum, it will be reported in the Estimates of Appropriations each year.

**Problems with the gas levy**

42. One submitter, MGUG (which represents large gas users that use 15 per cent of gas supplied in New Zealand), raised existing problems with the gas levy that is included in the energy levy changes.

43. MGUG identified that the gas levy is not being shown in many members’ invoices from suppliers as it should be. This could be resulting in underpayment of the gas levy.

**Officials’ comment**

44. Officials have begun investigating this issue, which results from practical issues for levy payers in accurately applying the requirements of the legislation. In particular, there appear to be information barriers and some ambiguity about who is liable to pay the levy in more complex supply chain situations.

45. Officials plan to make a later recommendation to the Commerce Committee on amendments to the Bill to mitigate this issue. The Bill may exacerbate the existing situation because of the potential for the amount needed to be recovered by the levy to increase.

46. It is anticipated that the recommended amendment will be within the scope of this Bill as it will improve the operation and administration of the gas levy.

47. Officials anticipate being able to give a final recommendation to the Committee in late March 2017.

**EV measures (clauses 16-20)**

48. The EV measures implemented by the Bill are:

- Special vehicle lanes – clarifying that a road controlling authority (RCA) may use its bylaw-making powers to give EVs access to special vehicle lanes. EVs in this context are vehicles which are powered solely by electric batteries, as well as plug-in-hybrid vehicles that operate on a combination of externally charged batteries and a petrol or diesel motor.

- New road user charges (RUC) exemption power – enable heavy EVs (such as plug-in electric buses) to be exempted from RUC, which is an extension of the current RUC exemption for light EVs. It does this by adding a definition of heavy electric RUC vehicles, and a power for the Governor General, by Order in Council, to specify a period during which RUC are not payable in respect of a heavy electric RUC vehicle.

49. The main issues raised in relation to the EV measures are below:

**Allowing EVs into special vehicle lanes would have an adverse impact on public transport**

50. A number of submitters (particularly the Road Controlling Authorities (RCA) Forum, and following road controlling authorities: Auckland Transport, Greater Wellington Regional Council, and Waikato Regional Council), stressed the negative effects of allowing EVs access to special vehicle lanes on the ability to deliver public transport services. Examples included that EVs could create congestion and inefficiencies.

51. Submitters such as the Bus and Coach Association reflected that the purpose of special vehicle lanes is primarily congestion reduction and that this initiative not only does not achieve this but would also reduce the benefits to EV owners due to lane congestion.
52. Submitters were also concerned that, in the future when there are a large number of EVs on the roads, bus lanes will become extremely congested and public transport will be adversely affected.

**Officials’ comment**

53. There are some bus lanes where the inclusion of EVs would be likely to negatively affect public transport and other transport initiatives. However, the initiative allows for an opt-in approach where an RCA, when using its bylaw-making powers, can balance other transport objectives when deciding which special vehicle lanes to allow EVs access to in order to deliver the maximum level of total benefit. An RCA can therefore allow EVs into special vehicle lanes where (or when) the impact on public transport priorities is below whatever threshold it considers appropriate.

54. In addition, an RCA can phase this initiative out through its bylaw making process if and when it believes that it is having a detrimental effect on its transport priorities (such as public transport).

**If EVs were allowed into special vehicle lanes, it would be difficult to enforce against misuse**

55. A number of submitters, including the AA, Auckland Transport, Greater Wellington Regional Council, Waikato Regional Council and two private individuals, felt that this particular initiative would be hard to enforce due to the difficulty of distinguishing between EVs and non-EVs. Some believe that this may cause network/lane confusion with other road users who are not permitted in these lanes, which will add to congestion and may have negative effects on safety.

**Officials’ comment**

56. The Motor Vehicle Register (MVR) will show whether the vehicle is an EV or not. The eligibility of any vehicle to use a special vehicle lane can be determined by accessing information about it on the MVR using its number plate. The MVR also shows the owner of the vehicle, enabling an infringement notice to be sent to them if necessary.

57. Officials recommend that an RCA’s ability to enforce the correct use of these lanes be improved by amending section 145 of the Land Transport Act to permit an image taken by approved vehicle surveillance equipment to be evidence of the unauthorised use of a special vehicle lane.

58. Confusion as to entitlement to use special vehicle lanes is intended to be addressed by clear signage required by new Land Transport Rules (the Rules). The proposal is that the rule change (currently under development) will require an RCA to:

- erect signage displaying what kind of vehicle is allowed access to the respective lane
- at the start of the special vehicle lane, and after each intersection along its length, mark on the road surface a white symbol defining the class or classes of vehicle for which the lane has been reserved.

**The two per cent cap for the proposed new exemption for heavy EVs from RUC is too low and does not provide sufficient certainty**

59. Submitters, including the Greater Wellington Regional Council, the Road Controlling Authorities Forum (RCA Forum) and the Bus and Coach Association, raised concerns that the intention that the RUC exemption for heavy EVs would be in place until they comprise two per cent of the heavy vehicle fleet would provide insufficient confidence and certainty for the industry to be able to invest in EVs. They noted that this could undermine the aim of promoting EV uptake. Those submitters also advocated for a higher target.
Officals’ comment

60. The Government chose a two per cent threshold as an appropriate balance between providing an incentive to early adopters and the overall expectation from a fairness and equity perspective that road users pay for the roads.

61. The current heavy vehicle fleet is approximately 147,000 vehicles, and two per cent would be approximately 2,900 vehicles. It is uncertain when this threshold will be reached, so the initial exemption is proposed to be set to expire on 31 December 2025 (as agreed by Cabinet). A review of the appropriateness of this expiry date is planned in 2019 (along with a review of the date of the RUC exemption for light EVs).

The proposed definition of a heavy electric RUC vehicle is too narrow and open to abuse

62. Submitters, including Auckland Transport, the RCA Forum and Z Energy, raised concerns that inclusion of “motive power wholly or partly derived from an external source of electricity” the proposed definition of a heavy electric RUC vehicle means it would be open to:

• vehicles with limited electric capacity
• abuse from vehicles modified solely to gain the exemption, rather than using electricity, and
• vehicles that offered lower emission reduction benefits compare to other options.

Officals’ comment

63. Officials consider that encouraging the uptake of vehicles with even limited electric capacity aligns with the overall objective of transitioning New Zealand’s fleet to a new form of transport technology powered by renewable electricity.

64. The New Zealand Transport Agency (NZTA) must certify and register new or modified vehicles as meeting the requirements. We do not consider that there will be significant scope for individuals to falsify or imitate this capability.

Other high level issues

65. The following high level issues were also raised.

• EVs in special vehicle lanes could be unsafe for cyclists and discourage the use of this mode as cyclists are often allowed access to these lanes.
  
  Response: As described earlier, RCAs will have the ability to choose on a lane-by-lane basis whether to allow use by EVs or not. They can therefore balance other transport objectives.

• EVs in special vehicle lanes could be unsafe for pedestrians because EVs do not emit much noise.

  Response: This situation has existed for more than 10 years with conventional hybrids (many of which are taxis). However, many EVs generate an artificial sound as a pedestrian safety measure.

• The proposals in the Bill should be replaced with financial incentives.

  Response: Financial incentives such as subsidies were considered by the Government at the time the EVs Programme was being developed. In general, they were considered unlikely to be the most efficient or desirable way to encourage the uptake of EVs.
Response to questions from the Committee

Use of special vehicle lanes by EVs in Norway

66. Norway has the highest level of EV uptake of any market, with approximately five per cent of its fleet being EVs, and EVs making up 37.5 per cent of new vehicle sales in January 2017.

67. In 2005, pure EVs were granted access to all bus lanes. In 2015, when EV market share was around two per cent, EV access to bus lanes was limited due to congestion arising in some lanes. EVs can only use lanes which are heavily congested during peak periods if they have two or more occupants. Some other bus lanes exclude EVs entirely.

Do RUC disincentivise electric buses?

68. The Bus and Coach Association noted that an electric bus was heavier than an equivalent diesel bus, and so would pay more RUC. The Committee asked officials to consider whether this meant that RUC was a disincentive to the uptake of electric buses.

69. As noted above, RUC is designed on the basis that road users pay for the roads, and heavier vehicles cause greater road wear. A vehicle which is heavier than another may pay a greater amount of RUC, depending on whether that difference and the number of axles is sufficient for it to fall into a higher RUC class.

70. However, RUC is only one of the costs faced by a bus operator. Electric buses are expected to have lower running costs, as the fuel costs are lower and maintenance costs will be reduced. A study in the United States estimated that an electric bus would have a lower total cost over 12 years than a diesel bus, although this is in an environment where road user pricing does not exist and diesel is approximately 30 per cent cheaper than in New Zealand (although electricity prices appear to be broadly similar).

71. We also note that some other New Zealand fleet operators have made the commitment to convert their heavy EVs to electric power, notwithstanding the potential increase in RUC they could face.

Secondary networks (clause 7)

72. The Bill makes changes to clarify how electricity industry regulation applies to secondary networks. It does this by adding new definitions of “secondary network” and “secondary network provider”, and a statement that a secondary network provider is to be treated as if they were a distributor for the purposes of the Electricity Industry Act.

73. The main issues raised in relation to the secondary networks changes are as follows:

Concerns about unintended consequences – coverage

74. A few submitters were concerned that the new definition of a secondary network provider is too broad, or that it inadvertently includes things it should not. Specifically:

- ChargeNet submits that this change could see EV infrastructure defined as a secondary network and subject to a regulatory regime designed for distributors, which in its view is not appropriate.
- Greater Wellington Regional Council, while supportive of intent, submits that the Wellington rail traction electricity network (owned by KiwiRail) and future technology such as induction charging embedded in roadways should not be treated like/included as secondary networks. Waikato Regional Council supported this view.
• The RCA Forum made a similar submission, noting that the proposed definition would include “non-distributing networks”, such as the traction network of any electrified rail line or any future light-rail line or induction charging network for EVs set within the road corridor.

• Trustpower was concerned at the inclusion of “customer networks” in the definition. Customer networks are a form of secondary network where the owner manages the network supplying a number of consumers at a single location, providing the consumers with network services and certain retail products and services.

• Utilities Disputes welcomed the intention to clarify the status of secondary networks, but submitted that the proposed definition is broad and is not clear what services are “similar to the services provided by a distributor”, which could lead to disputes about who meets it.

75. These submitters are concerned about increased compliance costs (for no benefit) and inhibiting innovation. Suggestions to address this include providing specific exemptions in the Bill.

76. The concern with potential disputes about who meets the definition relates to the legislative requirement for electricity distributors to belong to the approved electricity consumer dispute resolution scheme (currently Utilities Disputes) that would apply to secondary networks (that are not already distributors) following the change. Utilities Disputes suggest that the definition should be narrowed to include a requirement for the equipment to be “shared” – that is, for the equipment to service more than one Installation Control Point (which is a unique point at which electricity flows are metered) or consumer.

Officials’ comment

77. It is conceivable that a group of EV chargers could be joined together and operated in a way that is similar to that of an electricity distribution network. In this case, the provider of that network may meet the proposed definition of a secondary network operator. It is also possible that a rail traction electricity network may meet the new definition (KiwiRail is already registered as an electricity industry participant for the Wellington rail network as a “line owner”).

78. The Electricity Authority (the Authority), as the electricity industry regulator, has been considering the appropriate scope of its activities in relation to secondary networks, including any relevant voluntary market facilitation measures it develops and maintains. In many cases, secondary network providers already meet the definition of a distributor for the purposes of the Electricity Industry Act.

79. A key consideration in the Authority’s assessment is the costs and benefits of imposing obligations under the Electricity Industry Participation Code 2010 (which sets out the market rules) or market facilitation measures on participants.

80. As a principle, the Authority does not impose obligations where the costs outweigh the benefits. In addition, it can develop the Code so that it does not apply to particular parties, such as EV charging stations or a rail traction electricity network.

81. This approach is preferable to trying to define particular parties in the primary legislation that could be excluded, and is more consistent with the principled approach to regulation taken in the Electricity Industry Act.

82. Secondary network providers can operate on works and electrical installations, and can also be retailers (subject to the limits set out in Part 3 of the Electricity Industry Act). There are also exemption options that can be utilised to ensure the appropriate level of regulation applies.

83. The argument for excluding customer networks was considered in the development of this proposal. The amendment focuses on enabling the regulation of anyone providing the service of conveying electricity on lines that are not part of the national grid. It would be impossible to exclude customer networks without first defining them.
84. The issue of creating inappropriate obligations or requirements (that could potentially add significant costs) can be dealt with through exemptions, and/or through amending existing obligations or requirements to ensure they are appropriate (as per the proposed approach of the Electricity Authority outlined above). Future obligations and requirements can be developed in the context of the amended legislation. It is already possible to gain exemptions in certain circumstances.

85. This same argument is harder to apply if a very broad interpretation of the new definitions is adopted (as per the submission of Utilities Disputes) as it could potentially apply to landlords. In this case, an exemption option could be used, for example, “class” exemptions are possible where a particular group can be exempted from certain requirements.

86. Officials’ view is that the phrase “similar to the services provided by a distributor” in the second part of the proposed definition of a secondary network provider should rule out a landlord that does not provide a specific service like an electricity distributor (i.e. charging for the provision and maintenance of a network). However, it is important that this amendment is clear. While we do not necessarily agree that adding a requirement for the equipment to be “shared” will resolve this issue, we recommend that some amendments are considered to clarify the intention of the clause.

### Concerns about unintended consequences – interaction with the Electricity Act

87. Four submitters, Auckland Transport, Local Government NZ, Motor Industry Association, and the RCA Forum, were concerned that the secondary network changes would have possible indirect consequences in terms of the interpretation of “works” under the Electricity Act. They recommended that it should be expressly stated that nothing in the new provisions affects that Electricity Act. WRC supported AT’s submission.

88. The submitters argue that the proposed secondary network changes imply that secondary networks must be works (rather than electrical installations) under the Electricity Act. They then infer that an electricity operator would have a “prima facie” right to install such secondary network equipment in roads without reference to the RCA, with serious consequences.

89. AT and LGNZ were also concerned that the Bill does not clarify the status of secondary networks for the purposes of the Electricity Act.

### Officials’ advice

90. The amendment in the Bill has been drafted in a way that recognises the importance of ensuring that changes in definitions to address one issue do not alter how these definitions apply for other legislative purposes. Specifically, the amendment has been confined to the Electricity Industry Act so as to preserve the Electricity Act.

91. In fact, secondary networks can either be electrical installations or works under the Electricity Act and officials found no need to clarify this (although it is the reason for the ambiguity as to whether providers are electricity distributors or not for the purposes of the Electricity Industry Act, which clause 7 of this Bill addresses).

92. Further, electricity operators\(^3\) cannot use their right of access under section 24 of the Electricity Act without complying with the notification requirements in that Act, and have to follow the processes set out in the National Code of Practice for Utility Operators’ Access to Transport Corridors (made under the Utilities Access Act 2010). Both provide RCAs with the opportunity to impose reasonable conditions on access to the road reserve. Nothing in the Bill changes this obligation.

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Other issues

There are no provisions relating to the status of EV chargers under the Electricity Act

93. Five submitters raised concerns that there are no changes in the Bill relating to the status of EV chargers under the Electricity Act. The submitters were Auckland Transport, ChargeNet, Local Government NZ, the Motor Industry Association and Waikato Regional Council.

94. The issue is that there is uncertainty about whether EV chargers are “electrical installations” or “works” under the Electricity Act, and their view is that this needs to be clarified.

95. Submitters argue that there are serious consequences for RCAs if EV chargers are works because of the right that section 24 right (discussed in paragraph 90 above) that gives electricity operators to construct works in the road reserve. The main concern is that use of the right of access means that an RCA may not have the final say regarding the location of an EV charger.

96. Submitters note that the Government’s position (e.g. in the national guidance on EVs issued by NZTA in January 2017) appears to be that EV chargers are electrical installations, but that electricity operators do not necessarily accept this view.

97. The EEA made note of the absence of any provisions relating to EV chargers, and emphasised that it is worth ensuring that the appropriate legislation is in place to accompany a safe uptake of EVs and charging infrastructure.

Officials’ response

98. Given the focus on EV uptake which underlies this Bill, a clear regulatory framework to support investment in charging infrastructure is important. Officials maintain the position that the legislation should not be amended at this time. In most instances, EV chargers themselves are not works. Other infrastructure associated with the charger will more clearly meet the definition of works (i.e. any lines connecting the charger to the local network). The photo in figure 1 below illustrates this point.

Figure 1: photo of road side EV charger (provided by Northpower, the electricity distributor in Northland)

99. The definitions in the Electricity Act are complicated and it is recognised that there is some ambiguity as to the status of newer equipment being installed in the electricity system (such as batteries and EV
changers). Making an amendment now could have the effect of choosing a particular definition that may not be enduring, and could have unintended consequences.

100. The existing legislative framework covers safety, access and the management of access rights, and we have not identified any significant gaps.

101. Health and safety measures, including specific electrical safety measures apply to EV charging infrastructure regardless of how it is classified. WorkSafe New Zealand has developed guidance on the installation and use of EV chargers⁴.

102. The section 24 right of access is only relevant if the EV charger installer is an electricity operator⁵, and that EV charger is being installed in the road reserve. It therefore is only relevant to a subset of EV chargers. In terms of rights of access to the road reserve, a framework already exists, albeit across multiple pieces of legislation. EV charger installers that are not electricity operators can still access the road reserve through negotiation with local authorities⁶.

103. The National Code of Practice for Utility Operators’ Access to Transport Corridors (Utilities Code) also provides a nationally consistent and cooperative framework to manage transport corridors while providing for access rights (including the rights electricity operators have under section 24 of the Electricity Act). Electricity operators are legally obligated⁷ to comply with the Utilities Code, which provides a process for risk management and dispute resolution.

104. Officials consider that issues RCAs may have with the placement of EV chargers in the road reserve are similar to issues with the placement of other structures covered by the Utilities Code (such as poles and transformers), the difference being that consumers interact with an EV charger, and require them to be accessible. Installers of EV chargers are incentivised to locate them in safe, accessible and efficient charging locations.

105. There are options for utilising and developing the existing framework without legislative change, such as providing for EV charging infrastructure under regional and district plans, and/or amending the Utilities Code to specifically provide for EV charging infrastructure. Both options provide a more flexible and adaptable way of enabling the installation of EV chargers. However, if these options are ultimately found to not support the development of public charging infrastructure, legislative change may be needed.

**Need for a wider review of electricity industry legislation**

106. ERANZ (supported by Meridian Energy) stressed the need for further work by regulatory agencies to ensure that business has the confidence to invest. It is concerned that the market is being affected by the current regulatory settings around emerging technology, and seeks a review.

107. ChargeNet considers that the legislative environment is unclear, with apparent contradictory positions from the Electricity Authority and the Commerce Commission – the primary electricity industry regulators. AT’s submission makes a related point, noting concern about the secondary

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⁵ Electricity operator status is granted by the Minister of Energy and Resources under the Electricity Act to persons that the Minister has determined “need” it to commence or carry on business as an electricity distributor.


⁷ Under the Utilities Access Act 2010
networks changes and contradictions with the Commerce Commission’s regulation of electricity distributors under the *Commerce Act 1986*.

108. Both ERANZ and ChargeNet raised concerns about regulated monopoly parts of the market (i.e. electricity distributors) being able to participate in competitive parts of the market, but not under the same competitive pressures, including the example of EV chargers.

109. ERANZ recommends that the government facilitate a cross-agency (MBIE, Electricity Authority, Commerce Commission) assessment of the regulatory settings for EVs and other emerging technology in energy, to ensure an open, safe, and competitive market can develop. ChargeNet recommends interagency co-operation in the explicit definition of EV infrastructure as installations.

**Officials’ advice**

110. Officials have recognised that changes in technology are disrupting existing business models in the electricity sector and testing the boundaries drawn in legislation between activities. This Bill addresses legislative changes where a clear problem and regulatory response has been identified. There are wider issues that require more consideration and work is underway on this.

111. MBIE is forming a Council of Energy Regulators with the Electricity Authority, the Commerce Commission, and the Gas Industry Company. The aim of the Council is to contribute to the efficiency and effectiveness of the energy regulatory system by providing a forum for high level collaboration and information sharing.

112. Senior members from each organisation will take a whole-system view to consider regulatory issues and trends, risks, and gaps. They will share information and any emerging risks on the strategic priorities of member agencies and ensure a coordinated response in addressing issues for which there is an overlap or gap in the regulatory response.

113. While the new Council of Energy Regulators will not be a forum for policy development, any overlap or gap identified may give rise to further policy development by MBIE.

**Regulations Review Committee advice**

114. The Regulations Review Committee (RRC) recommended that the Commerce Committee consider amending:

- clause 4 of the Bill to further amend the current wording of section 128 of the *Electricity Industry Act* to require regulations prescribing the method of calculation of the levy to specify the portion of EECA’s costs included in the levy calculation.

- clause 14 of the Bill to require regulations prescribing the method of calculation of the levy to specify the portion of EECA’s costs included in the levy calculation.

- clause 20 of the Bill, which inserts a new section 37A of the *Road User Charges Act 2012*, to:
  - set out clearly the purposes and criteria for the granting of an exemption under that section
  - require that any regulations made under that section must include a statement of reasons for granting any exemption contained in those regulations
  - specify that regulations made under that section expire after a period of time specified in that section.
Officials’ response

115. Officials provided advice on the recommendations for the Commerce Committee’s consideration on 9 March. The advice recommended no changes to the Bill in response to the first two recommendations.

116. Some amendments in response to the third recommendation have been included in this departmental report.

The changes that officials recommend

Clause 7

117. Proposed new subpart 2A in the Bill includes a definition of a secondary network and a secondary network provider.

Officials’ response

118. It is important that it is clear who these definitions apply to, as discussed in paragraphs 83-84.

119. We recommend that:

• some amendments to the Bill are considered to clarify that the definitions in clause 7 are not intended to apply to a typical household landlord.

Clause 20

120. Proposed new section 37A in the Bill uses the same language as existing section 37, which provides a RUC exemption for light EVs.

Officials’ response

121. In light of the RRC’s advice, officials recommend changes to clause 20 so that it is more consistent with the RRC’s approach to exemption powers.

122. We recommend that:

• the following criterion be added in relation to the regulation-making powers in proposed section 37A:

  o A regulation can only be made for the purpose of encouraging and supporting the uptake of heavy EVs.

  o The initial exemption should expire no later than 31 December 2025 (the date agreed by Cabinet), and any subsequent exemption should have an expiry date of no more than five years.
ENERGY INNOVATION (ELECTRIC VEHICLES AND OTHER MATTERS) AMENDMENT BILL

PART B: CLAUSE BY CLAUSE ANALYSIS

Table of submitters (note that the bracketed acronyms are used in subsequent tables)

<table>
<thead>
<tr>
<th>Submitter</th>
<th>Category</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Future &amp; Air Volution</td>
<td>Business</td>
<td>Developer of low emissions vehicles</td>
</tr>
<tr>
<td>Auckland Regional Public Health Service (ARPHS)</td>
<td>Interested party</td>
<td>Public health service for Counties Manukau Health, Auckland and Waitemata district health boards. Submission does not necessarily reflect the views of those boards.</td>
</tr>
<tr>
<td>Auckland Transport (AT)</td>
<td>Local government/road controlling authority</td>
<td>Auckland region. Controlled Organisation (CCO) of Auckland Council responsible for all transport functions and operations. EV charger provider.</td>
</tr>
<tr>
<td>Automobile Association (AA)</td>
<td>Association or advocacy group</td>
<td>Advocate for road users (1.5 million members)</td>
</tr>
<tr>
<td>Bus and Coach Association</td>
<td>Association or advocacy group</td>
<td>Represents bus and coach industry</td>
</tr>
<tr>
<td>BusinessNZ</td>
<td>Association or advocacy group</td>
<td>Represents businesses</td>
</tr>
<tr>
<td>ChargeNet</td>
<td>Business</td>
<td>EV charger provider</td>
</tr>
<tr>
<td>Ecotricity</td>
<td>Business</td>
<td>Electricity retailer</td>
</tr>
<tr>
<td>Electricity Engineers’ Association (EEA)</td>
<td>Association or advocacy group</td>
<td>Representation for technical, engineering, health and safety and asset management issues with the electricity supply industry</td>
</tr>
<tr>
<td>Electricity Networks Association (ENA)</td>
<td>Association or advocacy group</td>
<td>Represents 27 electricity distribution businesses</td>
</tr>
<tr>
<td>Electricity Retailers Association of NZ (ERANZ)</td>
<td>Association or advocacy group</td>
<td>Represents electricity retailers</td>
</tr>
<tr>
<td>Flip the Fleet</td>
<td>Interested party</td>
<td>Project team of EV owners</td>
</tr>
<tr>
<td>Greater Wellington Regional Council (GWRC)</td>
<td>Local government/road controlling authority</td>
<td>Wellington region</td>
</tr>
<tr>
<td>Jean Linda Gorman</td>
<td>Individual</td>
<td></td>
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<tr>
<td>Jeannie Galavazi</td>
<td>Individual</td>
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<tr>
<td>Submitter</td>
<td>Category</td>
<td>Notes</td>
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<td>-----------------------------------------------</td>
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<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Laurence Jenner</td>
<td>Individual</td>
<td></td>
</tr>
<tr>
<td>Local Government NZ (LGNZ)</td>
<td>Association or advocacy group</td>
<td>National organisation of local authorities</td>
</tr>
<tr>
<td>Lydia Burnett</td>
<td>Individual</td>
<td></td>
</tr>
<tr>
<td>Major Electricity Users Group (MEUG)</td>
<td>Association or advocacy group</td>
<td>Represents large electricity users (26 per cent of New Zealand’s total electricity consumption)</td>
</tr>
<tr>
<td>Major Gas Users Group (MGUG)</td>
<td>Association or advocacy group</td>
<td>Represents large gas users (15 per cent of gas supplied in New Zealand)</td>
</tr>
<tr>
<td>Meridian Energy (Meridian)</td>
<td>Business</td>
<td>Electricity generator and retailer, partners with EV charger providers and Mevo, an EV car sharing service</td>
</tr>
<tr>
<td>Michael Mellor</td>
<td>Individual</td>
<td></td>
</tr>
<tr>
<td>Motor Industry Association (MIA)</td>
<td>Association or advocacy group</td>
<td>Voluntary trade association representing the new vehicle industry</td>
</tr>
<tr>
<td>Motor Trade Association (MTA)</td>
<td>Association or advocacy group</td>
<td>Represents 3,700 businesses in automotive industry and allied services</td>
</tr>
<tr>
<td>Nelson Transport Strategy Group (Nelsust)</td>
<td>Interested party</td>
<td>Transport strategy group</td>
</tr>
<tr>
<td>NZ Motor Caravan Association</td>
<td>Association or advocacy group</td>
<td>Membership based organisation for private motor caravan owners</td>
</tr>
<tr>
<td>Peter Buchanan</td>
<td>Individual</td>
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</tr>
<tr>
<td>Pioneer Energy</td>
<td>Business</td>
<td>Electricity generator, retailer, and provider of on-site heat and power facilities</td>
</tr>
<tr>
<td>Road Controlling Authorities (RCA) Forum</td>
<td>Association or advocacy group</td>
<td>Incorporated society of road asset managers and roading professionals</td>
</tr>
<tr>
<td>Robert Glennie</td>
<td>Individual</td>
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<tr>
<td>Stephen Crowsen</td>
<td>Individual</td>
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<tr>
<td>Stephen Fletcher</td>
<td>Individual</td>
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</tr>
<tr>
<td>Te Rūnanga</td>
<td>Association or advocacy group</td>
<td>Statutory representative tribal body of Ngāi Tahu Whānui</td>
</tr>
<tr>
<td>Tess McCawе</td>
<td>Individual</td>
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</tr>
<tr>
<td>Trustpower</td>
<td>Business</td>
<td>Electricity generator and retailer, gas retailer, telecommunications service provider</td>
</tr>
<tr>
<td>Utilities Disputes</td>
<td>Interested party</td>
<td>Electricity and gas consumer dispute resolution scheme</td>
</tr>
<tr>
<td>Vector</td>
<td>Business</td>
<td>Electricity and gas distributor/electricity operator/EV charger provider</td>
</tr>
<tr>
<td>W R Parkes</td>
<td>Individual</td>
<td></td>
</tr>
<tr>
<td>Waikato Regional Council (WRC)</td>
<td>Local government/road controlling authority</td>
<td>Waikato region. Submission prepared by staff and not formally endorsed by WRC.</td>
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</tbody>
</table>
General comments

<table>
<thead>
<tr>
<th>Item</th>
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<th>Submission</th>
<th>Officials’ comments</th>
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</thead>
<tbody>
<tr>
<td>001</td>
<td>Air Future &amp; Air Volution</td>
<td>Seeks classification for its product (which uses stored compressed air and electricity) as an electric and clean emission vehicle type. Want to make government aware of its business and note that it wants to be considered alongside other products – the legislation needs to be technology neutral.</td>
<td>This Bill is focussed on technology currently available with a proven track-record, but these proposals could be extended in the future to other low emissions technology when it reaches production.</td>
</tr>
<tr>
<td>002</td>
<td>ARPHS</td>
<td>Notes that submission does not necessarily reflect the views of the three district health boards it serves. Supports the Bills intent to introduce incentives to encourage the uptake of EVs, but has concerns about the policy regarding use of special vehicle lanes (outlined in the clause by clause analysis). Concerned with the Auckland EV Trial Bylaw as it will not produce enough data to reliably inform RCAs of the future impact of EVs in special vehicle lanes on traffic congestion.</td>
<td>Noted.</td>
</tr>
<tr>
<td>003</td>
<td>ARPHS</td>
<td>Additional consideration needs to be given to providing extra financial or purchase incentives to make the transition to an EV fleet more financially viable.</td>
<td>Noted. Financial incentives such as subsidies were considered by the Government at the time the EVs Programme was being developed. They were considered unlikely to be the most efficient or desirable way to encourage the uptake of EVs. The preference is to promote the benefits of EVs.</td>
</tr>
<tr>
<td>004</td>
<td>AT</td>
<td>Supportive of Bill, but concerned that no provision has been made for EV chargers. The Bill should provide that EV chargers are not “works” for the purposes of the Electricity Act – consider that there will be serious consequences to RCAs in terms of section 24 access rights set out in the Act if not.</td>
<td>Note the concern, but maintain the position that the legislation should not be amended at this time. Refer paragraphs 93-105 for discussion on this point.</td>
</tr>
<tr>
<td>005</td>
<td>AT</td>
<td>Concerned about possible effects on electricity charging or pricing – should consider if there are potential peak pricing impacts of the Bill on the future operation and electrification of</td>
<td>The proposed amendments in the Bill will have no impact on the regulatory framework for distribution pricing, aside from clarifying that secondary networks providers can be subject to</td>
</tr>
</tbody>
</table>
AT’s public transport network, street lighting etc. which are significant users of electricity at peak times.

**006 Business NZ**

Support the intent of the Bill, but principally opposed to levy funding of EECA. Preferable if funding for public-good type services delivered by EECA to come from general taxation, which has the following benefits:

- All taxpayers contributing and signals the strategic priority of the expenditure
- Highly cost effective as uses existing tax collection
- Relatively stable and predictable in comparison to a levy
- Funding decisions would be subject to Treasury scrutiny, increasing EECA’s accountability and efficiency.

The proposed funding arrangements fail to comply with government best practice funding policy guidelines (notably The Treasury’s), as well as take account of some of the best practice coming out of the Australian Productivity Commission.

EECA’s activities are carried out to protect the wider public interest – the benefit is to all New Zealanders, not just selective (private) groups or particular sectors of the economy. It is not possible to exclude people from enjoying the benefits, e.g. how do you exclude those who do not pay for the service but benefit from the claimed lower overall electricity prices or the benefits of lower emissions?

The recovery of a subsidy or incentive by levy is unusual – if there are beneficiaries that can be identified, they should be charged directly, on a fee-for-service basis. However, given the initial rationale for government intervention (energy efficiency services were being under-procured and required incentives), this will not work.

On the other hand, compulsory payments extracted without the consent those being levied indicates the benefits of those levies are being conferred on other parties.

Requests that the Committee asks the government to fund most of the cost of EECA from general taxation.
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<tr>
<th>Item</th>
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<th>Position</th>
<th>Comment</th>
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<tbody>
<tr>
<td>007</td>
<td>ChargeNet</td>
<td>Supports the Bill, but has concerns about the secondary network changes (outlined in the clause by clause analysis). Care must be taken to ensure that EV charger installers can continue to install chargers in a competitive retail environment. Agree with the New Zealand Transport Authority’s view that EV chargers should be treated as “installations”. EV infrastructure should be considered a unique case with insulation from the regulatory environment designed for distributors who conveyed electricity via structures considered to be “works”. Recommend interagency co-operation in the explicit definition of EV infrastructure as installations.</td>
<td>Refer response to item 004.</td>
</tr>
<tr>
<td>008</td>
<td>Ecotricity</td>
<td>Supports.</td>
<td>Noted.</td>
</tr>
<tr>
<td>009</td>
<td>EEA</td>
<td>Generally support. Note that there are no amendments regarding publicly available EV charging infrastructure, and would like to emphasise that it is worth ensuring that the appropriate legislation is in place to accompany a safe uptake of EVs and charging infrastructure. Note that this area is somewhat new and complex, and may require amendments to the Electricity (Safety) Regulations 2010, which is out of scope.</td>
<td>Noted. Refer response to item 004.</td>
</tr>
<tr>
<td>010</td>
<td>EEA</td>
<td>Support the purpose of the Bill. Recommend Electricity Industry Act and the Energy (Fuels, Levies, and References) Act include a clause that requires formal periodic (not more than every 5 years) reviews of levies to ensure they meet their objectives, their requirements are appropriate in light of potentially changing circumstances, and the continuation of these levies are still relevant over time.</td>
<td>Agree that it is important that all legislation continues to be appropriate and relevant over time. Departments that administer legislation already have processes to ensure legislation is fit for purpose. For example, MBIE has a regulatory systems programme, which includes policy reviews of the legislation it is responsible for to determine if any legislative change would is needed. Stakeholders can also raise issues with us about specific legislation at any time. Consider that it is unnecessary to include specific requirements for periodic review in all legislation that provides for a levy.</td>
</tr>
<tr>
<td>011</td>
<td>ENA</td>
<td>Supportive of the policy proposals regarding energy levies and electricity legislation definitions and are pleased to see them progressed in a timely fashion.</td>
<td>Noted.</td>
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<tr>
<td><strong>012</strong></td>
<td>ERANZ</td>
<td><strong>Support</strong> any initiatives that help transition to a low-emission economy and agree that uptake of EVs is one such measure.</td>
<td></td>
</tr>
<tr>
<td><strong>013</strong></td>
<td>Jeannie Galavazi</td>
<td><strong>Support</strong> any changes to policy and legislation that will remove barriers to the widespread adoption of EVs in New Zealand. Incentives should be provided for families and companies wishing to purchase an EV and for companies wishing to expand on required infrastructure.</td>
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</tr>
<tr>
<td><strong>014</strong></td>
<td>Laurence Jenner</td>
<td>Support the Bill, but it does not go far enough to ensure benefits will be realised in a meaningful way, nor make a clear and firm commitment to supporting action on climate change. The real purpose of the Bill is unclear. Transport is on the only logical place to focus our efforts (assuming agriculture emissions are too hard to tackle in the short term). The amendments in the Bill, but should be expanded to:</td>
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<td>- Include an explicit statement that this Bill supports the objectives of COP21 Agreement by accelerating NZ’s transition to sustainable transport</td>
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<td>- Help balance the currently high purchase costs of EVs by eliminating new and used vehicle registration and annual license charges for up to 5 years</td>
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<td></td>
<td>- Introduce a 5 per cent tax rebate for all new and used EVs purchased by individuals for up to 5 years</td>
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<tr>
<td></td>
<td></td>
<td>- Consider eliminating FBT on new EVs purchased by public sector agencies and private companies for up to 5 years.</td>
<td></td>
</tr>
<tr>
<td><strong>015</strong></td>
<td>LGNZ</td>
<td>Supportive of the Bill, but concerned that it does not clarify the status of EV chargers for the purposes of the <em>Electricity Act</em>. The Bill should provide that EV chargers are not “works” for the purposes of the <em>Electricity Act</em>.</td>
<td></td>
</tr>
<tr>
<td><strong>016</strong></td>
<td>Meridian</td>
<td>Supports in so far as it broadly supports ERANZ’s submission (which is supportive of the Bill, but notes that more work is</td>
<td></td>
</tr>
</tbody>
</table>

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**Noted.**

**Noted.**

**Noted.**

**Noted.**

**Disagree.**

The package of measures agreed by Cabinet included a direction to Inland Revenue to review the depreciation rate and method of calculating fringe benefit tax (FBT) to ensure current tax rules were not overtaxing business investment in EVs. Inland Revenue are due to report to the Minister of Transport on the results by 31 March 2017. Additionally, New Zealand’s tax system benefits from being simple and straightforward and is not an efficient way of changing behaviour. Refer response to item 003.

Refer response to item 004.
needed on regulatory framework as outlined in ‘matters not included in the Bill’).

| 017  | MEUG    | Supports the intent of the Bill, but principally opposed to levy funding of EECA. Many of the benefits of the energy efficiency outcomes sought in the Bill are for all New Zealanders, not just selective or targeted parties. An example is EECA’s work related to climate change, where there will be wider benefits across the economy and for the environment generally. It is a well-established principle that where government services can be defined as public goods they are generally best funded out of general taxation. This:
- Signals the strategic policy of the expenditure
- Reduces cross-subsidisation by ensuring all beneficiaries contribute
- Is highly cost effective and simple to administer (using existing tax systems)
- Promotes stability and enhances predictability
- Enhances both Treasury and broader public scrutiny and accountability.
Where the benefits and costs of government activity are largely of a private nature with few externalities, such activity should be funded as much as possible by user charges. This is not the case with the outcome sought by the Bill. | Refer response to item 006. |

| 018  | MGUG    | Do not support the levy changes. Considers it a well-established principle that where services can be defined as a public good they are generally best funded out of general taxation. Charges aimed at providing economy wide benefits or public good should be spread over the economy as widely as possible – this reduces cross-subsidisation and free riding and also minimises the impact on the competitiveness of our export sector. | Refer response to item 006. |

<p>| 019  | MGUG    | There is currently underpayment of the gas levy. The gas levy is not being shown in many members’ invoices from suppliers. | Officials had also identified issues with the operation of the gas levy. There are some practical issues for levy payers in |</p>
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<th>Page</th>
<th>Code</th>
<th>Text</th>
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<tbody>
<tr>
<td>020</td>
<td>MGUG</td>
<td>Unclear as to the actual impact of the Bill in terms of additional burden.</td>
</tr>
<tr>
<td>021</td>
<td>MGUG</td>
<td>What the impact will be on the current gas levy rate of two cents per gigajoule if MBIE was to discover that it could collect twice the money for the current purpose of the levy? No information provided with regard to the current amount being recovered or how it is spent; there is no indication whether there area funds available from the existing pool that could be applied to this policy initiative.</td>
</tr>
<tr>
<td>022</td>
<td>MIA</td>
<td>If the energy levy changes prevail, the current exemptions should be reconsidered. For example the current gas levy is collected on piped natural gas except for gas sold as feedstock, generation of electricity and liquefied petroleum gas. If the rationale is to fund energy efficiency improvements and fuel switching to renewables, excluding gas used for electricity generation and LPG, is not consistent with this underlying philosophy. It is also a significant anomaly that coal is excluded. The exclusions for gas used for electricity generators, cogeneration, LPG should be remove, and also coal should be levied where it is used as an energy source.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supports the broad intent of the Bill, but questions the</td>
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</table>
expansion of levies to fund EECA.
In general, if the services in question can be defined as public
goods they are generally best funded out of general taxation.
With private goods, the cost should be funded as much as
possible by means of other user charges.
Given many of the desired energy efficiency outcomes, it is
evident that the services are carried out to protect the wider
public interest of the economy, its citizens and the environment.
The benefit is to all New Zealanders, not just selective (private)
groups or particular sectors of the economy.
Funding should more appropriately come from the consolidated fund.

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<table>
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<tr>
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<tbody>
<tr>
<td>023 MIA</td>
<td>For the most part, providers of EV charging stations should come under the legislative provisions of an “installation” – the Bill should be subject to further advice and consideration on what changes are necessary to clarify what is currently a confusing and slightly contradictory competing set of regulatory requirements.</td>
<td>Refer response to item 004.</td>
</tr>
<tr>
<td>024 MTA</td>
<td>EVs should be incentivised through other avenues such as tax rebates, awarding government contracts to use EVs.</td>
<td>Noted. The Government announced a comprehensive package in May 2016, which aims to increase the uptake of EVs. Refer response to item 003.</td>
</tr>
<tr>
<td>025 MTA</td>
<td>Cost savings to heavy vehicle operators would be more beneficial if they were to be made up front at the time of vehicle purchase.</td>
<td>Noted. Refer response to item 003.</td>
</tr>
<tr>
<td>026 Nelsust</td>
<td>Support the use of EVs to minimise air pollution, but concerned at impact on congestion (outlined in the clause by clause analysis).</td>
<td>Noted.</td>
</tr>
<tr>
<td>027 NZ Caravan Association</td>
<td>Support the government’s desire to encourage and promote the use of EVs, where suitable and practicable, to assist with the reduction of carbon emissions and greenhouse gases.</td>
<td>Noted.</td>
</tr>
<tr>
<td>028 Peter Buchanan</td>
<td>Support the Bill in principle – the amendment heads in the right direction, though comes some years after government policy in other countries that have more readily shown leadership in sustainable transport options.</td>
<td>Noted.</td>
</tr>
<tr>
<td>029 Pioneer</td>
<td>Supports, but notes that submission only relates to the</td>
<td>Noted.</td>
</tr>
<tr>
<td></td>
<td>Energy secondary network changes (outlined in clause by clause).</td>
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</tr>
<tr>
<td>030</td>
<td>RCA Forum</td>
<td>Generally supportive.</td>
</tr>
<tr>
<td>031</td>
<td>Robert Glennie</td>
<td>Generally support the Bill as it goes some way towards addressing the need for more efficient private vehicles with regards to emissions discharge. However, more should be done to encourage non plug-in hybrid vehicles – they don’t have to be plugged in. Lead car batteries are very toxic to dispose of – Toyota and other companies are putting substantial research into lithium batteries and to ensure that batteries of hybrid cars do not get dumped when they die.</td>
</tr>
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<td>The conventional hybrid market is relatively well established in New Zealand. We also note that 90 percent of charges take place at home or business. Additionally, the public charging station network is expanding across New Zealand with some recent additions in smaller towns such as Thames, Featherston and Takaka.</td>
</tr>
<tr>
<td>032</td>
<td>Stephen Crowsen</td>
<td>Not convinced that life on this planet is in peril of carbon dioxide poisoning or excessive heat or some similar CO2 catastrophe – provides own analysis of radiation absorption wavelengths of gases in the atmosphere.</td>
</tr>
<tr>
<td>033</td>
<td>Te Rūnanga</td>
<td>Supports the overall intent of the amendments proposed in this Bill as it is a positive step in realising the need for a suite of policy to address emissions reduction and climate change. Urge the government to continue to introduce policies that incentivise adoption of low emissions technologies, and to be bold in doing so.</td>
</tr>
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<td></td>
<td>There are other work streams underway, including the replacement of the government’s energy efficiency and conservation strategy (which includes the promotion of renewables), and the wider EVs Programme that aims to increase the uptake of EVs.</td>
</tr>
<tr>
<td>034</td>
<td>Tess McCawe</td>
<td>The Bill is one tiny step in the right direction. Dependency on fossil fuels forces New Zealanders into alignments with political ideologies and regimes unlikely to be in the long term interests of our country and children. Innovation and implementation of renewable energy sources will help us look after our country and planet. Using the energy of the sun to generate electricity isn’t rocket science, so let’s get on with it.</td>
</tr>
<tr>
<td>035</td>
<td>Trustpower</td>
<td>Generally supportive.</td>
</tr>
<tr>
<td>036</td>
<td>W R Parkes</td>
<td>Submission requests that the Committee investigates the enormous potential of the Air Future Ltd company, which would provide motor vehicles with little or no carbon emissions, and electricity production on site without power lines. Attaches a company newsletter.</td>
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<tr>
<td><strong>037</strong></td>
<td><strong>WRC</strong></td>
<td>Supportive of the Bill, but submits that EV chargers are not “works” for the purposes of the <em>Electricity Act</em> and refers to comments by AT and GWRC.</td>
</tr>
<tr>
<td><strong>038</strong></td>
<td><strong>WRC</strong></td>
<td>A wider package of measures to incentives heavy EVs would be of greater value. In particular it suggested, keeping a separate class for registration purposes for heavy EVs for a specific time period and increased charging stations in key locations.</td>
</tr>
<tr>
<td><strong>039</strong></td>
<td><strong>Z Energy</strong></td>
<td>Agrees in principle with the outcomes the Bill aims to achieve. There is a good opportunity to faster accelerate the uptake of low emission heavy vehicles and this could be achieved by adopting the more traditional definition of an EV.</td>
</tr>
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</table>
## Commencement and Part 1 – Preliminary provisions

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<tr>
<th>Item</th>
<th>Clause</th>
<th>Submitter</th>
<th>Submission</th>
<th>Officials’ comments</th>
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<tbody>
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<td>1 and 2</td>
<td></td>
<td>No submissions specifically on this part.</td>
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## Part 1 – Amendments to Electricity Industry Act 2010

### Clauses 3-7

<table>
<thead>
<tr>
<th>Item</th>
<th>Clause</th>
<th>Submitter</th>
<th>Submission</th>
<th>Officials’ comments</th>
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<tbody>
<tr>
<td>102</td>
<td>4</td>
<td>BusinessNZ MGUG</td>
<td>Do not support.</td>
<td>Noted.</td>
</tr>
<tr>
<td>103</td>
<td>4</td>
<td>EEA</td>
<td>Do not support. Deleting any reference to the scope of activities funded will mean that there will be no legal requirement preventing EECA from allocating levy funds to administrative or other operational activities not directly relevant to its energy efficiency mandate. Recommend inserting “…in relation to the encouragement, promotion, and support of energy efficiency, energy conservation and the use of energy from renewable sources” instead.</td>
<td>Disagree. All of the costs that EECA incurs must relate to its statutory purpose, which is to encourage, promote and support energy efficiency, energy conservation, and the use of renewable sources of energy. This requirement is set out in the annual Estimates of Appropriations (which outlines expenses and capital expenditure the Government plans to incur).</td>
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<td>Page</td>
<td>Support/Trustpower</td>
<td>Remarks</td>
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<td>104</td>
<td>Support, but concerned that EECA could potentially extend the use of the electricity levy to fund activities that do not have a beneficiary or causer link to electricity. Recommend inserting “in relation to the encouragement, promotion, and support of energy efficiency, energy conservation and the use of energy from renewable sources through activities that directly impact industry participants” (so can still use electricity for EV uptake).</td>
<td>Disagree. This would reduce flexibility and increase the administratively complexity and cost of the levy. The intention of the proposed levy design is to enable the relative contributions of each of the three levies to “broadly align” with EECA’s work programme, not to have to apply a strict legal test to the use of a particular levy. The design aims to minimise administrative complexity and cost. Officials acknowledge the need to balance this flexibility with the need for accountability and transparency. Cabinet has agreed that EECA’s annual consultation must set out (amongst other things) the link between those groups being levied and whether they are either the beneficiaries, or the ‘causers’ of the need for each programme it intends to levy fund.</td>
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<td>105</td>
<td>Support addition of 128(5)(aa) provided that the extent of the under and over recovery of costs is reported by EECA during its consultation.</td>
<td>Any under or over recovery of levy funding will need to be reported to enable the levy rate to be set correctly. At minimum, it will be reported in the Estimates of Appropriations each year.</td>
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<td>106</td>
<td>Section 128(5)(b) of the Electricity Industry Act may need amending or removing as the new 128(5)(aa) may make it redundant.</td>
<td>Disagree. This is still required for the levy regulations made under section 128 as they apply to the Electricity Authority.</td>
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<td>Page</td>
<td>BusinessNZ</td>
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<td>108</td>
<td>Do not support.</td>
<td>Noted.</td>
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<td>110</td>
<td>If the changes to energy levies proceed, there should be a requirement for heightened accountability to levy payers by requiring additional reporting elements when EECA annually consults on the application of the levy funds. Recommend adding the following to clauses 6 and 12: “(2) When consulting with those persons liable to pay the levy, the EECA must include – a the forecast spending outturn against the spending activities approved for the previous financial year; and b an explanation of any material variances between approved spending and forecast; and c the energy efficiency outcomes achieved by the spending; and d a statement of the energy efficiency outcomes expected to be achieved in the new financial year.”</td>
<td>Disagree. As a Crown entity, EECA already has statutory obligations to account for any differences between the planned and actual delivery of outputs. For example, EECA must set out its outputs in an annual Statement of Performance Expectations (SPE), which is then reported on quarterly to the Minister or Energy and Resources, and in its Annual Report. Officials are of the view that these current reporting obligations, along with the additional expectation set out by Cabinet for EECA’s consultation, are adequate to ensure accountability and transparency. Further, officials consider that providing too much prescription in the legislation will not allow consultation processes to evolve over time to remain effective and meaningful.</td>
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<td>111</td>
<td>6</td>
<td>EEA</td>
<td>The Bill should specify and clarify the intent that the annual consultations on EECA’s appropriations include details about EECA’s draft work programme, show the proposed amounts for each levy and stipulate which levy will be used for each activity. Recommend adding the following to clauses 6 and 12: • for each activity, the levy revenue allocated and the actual spending for the previous year, with explanations on any discrepancies between EECA’s budget and actual spending • EECA’s work programme and the proposed levy amounts and allocation for the new year, with explanations for the rationale behind each activity in light of the Treasury’s Guidelines and the New Zealand Energy Strategy; and • an analysis of the energy efficiency achievements made in the past year, where practicable broken down by activities, and new energy efficiency targets for the new year.</td>
<td>Disagree. Refer response to item 110.</td>
</tr>
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<td>112</td>
<td>6</td>
<td>MEUG</td>
<td>Concerned about cross-subsidisation between levy payers. EECA’s activities can have wider benefits than just for levy payers, or benefits that are distributed across the broader economy. Some of EECA’s funding goes to individual companies that then receive private benefit. Reducing the quantum of levy on electricity users is supported as it should reduce (but not remove) this problem. There is a need to promote transparency and accountability for how effectively EECA is spending levy payer funding. Recommend adding the following to clauses 6 and 12: In 129A(2), add to the end: “...including an assessment of</td>
<td>Disagree. Refer response to item 110. In addition, EECA is already subject to the public sector framework for accountability and transparency, including regarding the release of information (e.g. the Official Information Act 1982).</td>
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a  Whether there is any cross-subsidisation between levy payers; and
b  Classification and justification for assigning proposed work programmes as either a “wider public good” or a “private good” or a combination of those given only public goods specific to the energy form levied can be paid by a levy on users.”

A new clause 129(2A) to be inserted that:
“The EECA must publish as soon as practicable ahead of consulting on an appropriation for a forthcoming year a list of parties that received payments from a levy funded work programme in the year just ended, the quantum of those payments, and qualify the efficiencies expected or achieved from that payment.”

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<td>113</td>
<td>6</td>
<td>MGUG</td>
<td>Do not support. EECA provided estimates of gas savings from prior years, but these were not supported by or referenced to any costs for those years. Sceptical that good cost/benefit analysis to justify any levy will be provided in future.</td>
<td>Noted.</td>
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| 114 | 6 | MIA | There needs to be more transparency and accountability. Recommend adding the following to clauses 6 and 12:  
• The forecast spending outturn against the spending activities approved for the previous financial year; and  
• An explanation of any material variances between approved spending and forecast; and  
• The energy efficiency outcomes achieved from that spending; and  
• A statement of the energy efficiency outcomes expected to be achieved in the new financial year. | Disagree. Refer response to item 110. |
| 115 | 6 | Trustpower | Support, but urge EECA to consult on overall work programme, not only those programmes and activities which are attributable to a given levy. | Disagree. Refer response to item 110. |
Regular reporting on projected results and ex-post outcomes would provide a wider range of info for business decision-making. This would assist not only the targeting of future EECA work programmes, but with encouraging market-driven innovation focussed on energy efficiency.

| 116  | 7 AT | Has possible indirect consequences in terms of the interpretation of “works” under the *Electricity Act* and should expressly state that nothing in it affects that Act. |
| 117  | 7 AT | Does not clarify the status of secondary networks for *Electricity Act* purposes, and concerned about contradictions with the Commerce Commission’s regulation of electricity distributors under the Commerce Act 1986. |
| 118  | 7 AT | Should clarify whether secondary network providers are ‘distributors’ or ‘retailers’ of “works” or “electrical installations”. |
| 119  | 7 ChargeNet | Does not provide sufficient clarity – the term ‘equipment’ in the new definition does not specifically exclude emerging technology that clearly fits the definition of an installation, such as a group or series of networked EV chargers. |
| 120  | 7 ChargeNet | Has potential to stifle the competitive market – neither description is precise enough to provide the stable investment environment needed to encourage uptake of emerging technologies that facilitate transport. The Electricity Authority considers EV charging services as retailing, while this change could see EV infrastructure defined as a secondary network and subject to a regulatory regime designed for distributors. |

Disagree. The amendment in the Bill has been drafted in a way that recognises the importance of ensuring that changes in definitions to address one issue do not alter how these definitions apply for other legislative purposes. Specifically, the amendment has been confined to the Electricity Industry Act so as to preserve the *Electricity Act*.

The intention of the proposed amendment was to preserve the status quo regarding the *Electricity Act*. While complicated, consultation on the development of this proposal found that the definitions in the *Electricity Act* appeared to be fit-for-purpose and were not creating any significant issues with regards to its application. Regulation under the Commerce Act 1986 is out of scope.

Secondary network providers can operate on works and electrical installations, and can also be retailers (subject to the limits set out in Part 3 of the Electricity Industry Act).

Disagree that the definition should specifically exclude emerging technology (refer responses to general comments).

Discussion on this point is in paragraphs 77-86.
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<th>Notes</th>
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<tbody>
<tr>
<td>122</td>
<td>7</td>
<td>EEA Support. The proposed definitions are consistent with those associated with distribution lines and “distributor” (in that the use of the term “conveyance” is also used in the definition of “distribution”). Appreciate that it will not impact the status of secondary networks under the <em>Electricity Act</em> (when they can be classified as electrical installations).</td>
<td>Noted.</td>
</tr>
<tr>
<td>123</td>
<td>7</td>
<td>GWRC Supportive of intent. The Wellington rail traction electricity network (owned by KiwiRail) and future technology such as induction charging embedded in roadways should be exempt from the application of the <em>Electricity Industry Act</em> as it would apply to secondary networks.</td>
<td>Disagree. An exemption would be difficult to include in the primary legislation. The legislation already provides for exemptions to be granted.</td>
</tr>
<tr>
<td>124</td>
<td>7</td>
<td>LGNZ Does not clarify the status of secondary networks for the purposes of the <em>Electricity Act</em></td>
<td>Refer response to item 116.</td>
</tr>
<tr>
<td>125</td>
<td>7</td>
<td>LGNZ Risk that indirectly affects the interpretation of the <em>Electricity Act</em> as it implies that secondary networks must be “works” (rather than “installations”) – an electricity operator would then have a “prima facie” right to install such equipment in roads without reference to the road controlling authority. Consequences could be serious in terms of rights of access to the road corridor. The Bill should expressly state that nothing in it affects the <em>Electricity Act</em>.</td>
<td>Refer response to item 116. Further, electricity operators cannot use their right of access under section 24 of the <em>Electricity Act</em> without complying with the notification requirements in the Act, and has to follow the processes set out in the Utilities Code (made under the Utilities Access Act 2010. Both provide the road controlling authority with the opportunity to impose reasonable conditions on access to the road reserve. Nothing in the Bill changes this obligation.</td>
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<td>126</td>
<td>7</td>
<td>MIA Linkages to other legislation are confusing – “conveyance” is not defined in either the <em>Electricity Act</em> or the Electricity Industry Act, but it is used in the definition of “distribution” in the latter.</td>
<td>The term conveyance has been used to be consistent with the terminology used in the definition of distribution – the common meaning of the term is intended to apply.</td>
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<td>127</td>
<td>7</td>
<td>MIA The clarification remains vague as it applies to those</td>
<td>Refer response to item 120.</td>
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</table>
companies retailing electricity to vehicle owners through charging stations. It will not always be appropriate to classify EV charging facilities as secondary networks. The legislation should clarify and provide for retailing from EV chargers – it should not be onerous or restrictive.

| 128 | 7 | Pioneer Energy | Agree with intent and appears that the proposed definition aligns with the current definition or scope of a distributor. | Noted. |
| 129 | 7 | Pioneer Energy | The definition of a distributor [in the Electricity Industry Act] should end at the Installation Control Point (ICP) – this is a unique point at which electricity flows are metered and charged for. What happens beyond the ICP has no bearing on the operation of the market or implications for its participants – the complexity and complications of the industry code (developed and administered by the Electricity Authority) should not go beyond the ICP. | Disagree. Under the existing framework, the industry code can developed and applied based on obligations to the ICP when relevant. Some non-regulatory measures need to apply beyond the ICP (such as measures to protect vulnerable consumers), and some customers on secondary networks do not have ICPs. |
| 130 | 7 | Pioneer Energy | Extending the implications of being a distributor past the ICP has the potential to restrict or inhibit innovation in the market – absence of complexity tends to incubate the development of new ideas. | Disagree. The Bill does not change the definition of a distributor. |
| 131 | 7 | RCA Forum | The proposed definition would include “non-distributing networks”, such as the traction network of any electrified rail line or any future light-rail line or induction charging network for EVs set within the road corridor. This could increase compliance costs for no benefit, and inhibit the adoption of innovative technical solutions. The Bill should be amended to exclude any network where the services are not akin to those of an electricity distributor. | Disagree. The Bill effectively does this through the second part of the definition of a secondary network provider in 131A(2) in clause 7. Refer response to item 125. |
| 132 | 7 | RCA Forum | Has possible unintended consequences in terms of the interpretation of “works” under the Electricity Act that could be serious for RCAs in terms of section 24 rights of access under that Act. The Bill should expressly state that nothing in it affects the Electricity Act. | Refer response to item 125. |
| 133 | 7 | Trustpower | Agree with amendment, but only in so far as it would | Disagree. The argument for excluding customer networks |
apply to embedded networks and network extensions. In respect of customer networks though, it has the potential to add significant costs when conveyance is not their primary business activity – generalising the treatment of different business models may stifle their development. Customer networks should be explicitly excluded until work is done to clearly define what would constitute one and it is possible to gain exemptions.

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<th>Item</th>
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<tr>
<td>134</td>
<td>7</td>
<td>Utilities</td>
<td>Welcome the intention to clarify the status of secondary networks. The proposed definition is broad (it could be argued to cover a typical household landlord) and is not clear what services are “similar to the services provided by a distributor”. As is, it could result in disputes about which businesses meet the definition. The definition should be narrowed to include a requirement for the equipment to be “shared” – that is for the equipment to service more than one ICP or consumer.</td>
<td>Noted. Do not necessarily agree that adding a requirement for the equipment to be “shared” will resolve this issue. Officials recommend that amendments are considered to clarify the intention of the clause.</td>
</tr>
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<td>135</td>
<td>7</td>
<td>WRC</td>
<td><em>Note that submission not formally endorsed by the Council.</em> Concerned about wider implications for the energy industry – AT and GWRC have elaborated on this as it relates to secondary networks.</td>
<td>Refer responses to items 116-118 and 123.</td>
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Part 2 – Amendments to the Energy (Fuels, Levies, and References) Act 1989

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<tr>
<th>Item</th>
<th>Clause</th>
<th>Submitter</th>
<th>Submission</th>
<th>Officials’ comments</th>
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<tr>
<td>201</td>
<td>9</td>
<td>AT, ChargeNet,</td>
<td>Support.</td>
<td>Noted.</td>
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<td>Item</td>
<td>Clause</td>
<td>Submitter</td>
<td>Submission</td>
<td>Officials’ comments</td>
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<td></td>
<td></td>
<td>Ecotricity, EEA, ENA, Lawrence Jenner, Peter Buchanan, RCA Forum, Robert Glennie, Trustpower, Vector, WRC.</td>
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<tr>
<td>203</td>
<td>11</td>
<td>BusinessNZ MGUG</td>
<td>Do not support.</td>
<td>Noted.</td>
</tr>
<tr>
<td>204</td>
<td>11</td>
<td>EEA</td>
<td>Do not support. Deleting any reference to the scope of activities funded will mean that there will be no legal requirement preventing EECA from allocating levy funds to administrative or other operational activities not directly relevant to its energy efficiency mandate. Recommend adding the following text: Refer response to item 103.</td>
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<td>Item</td>
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<tr>
<td>205</td>
<td>11</td>
<td>MEUG</td>
<td>If EECA is to continue to be levy funded (which MEUG is principally opposed to), then support this clause.</td>
<td>Noted.</td>
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<td>206</td>
<td>11</td>
<td>Trustpower</td>
<td>Support, however the proposed section should specify the intended use of the levy appropriation. Recommend adding the following text: “...in relation to the encouragement, promotion, and support of energy efficiency, energy conservation and the use of energy from renewable sources through activities that directly impact industry participants,...”</td>
<td>Refer response to item 104.</td>
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<td>207</td>
<td>12</td>
<td>AT, ChargeNet, Ecotricity, ENA, ERANZ, Lawrence Jenner, LGNZ, Peter Buchanan, RCA Forum, Robert Glennie, Te Rūnanga, Vector, WRC.</td>
<td>Support.</td>
<td>Noted.</td>
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<tr>
<td>208</td>
<td>12</td>
<td>BusinessNZ</td>
<td>If the changes to energy levies proceed, there should be a requirement for heightened accountability to levy payers by requiring additional reporting elements when EECA annually consults on the application of the levy funds. Recommend adding the following to clauses 6 and 12: “(2) When consulting with those persons liable to pay the levy, the EECA must include – a the forecast spending outturn against the spending activities approved for the</td>
<td>Disagree. Refer response to item 110.</td>
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<td>Item</td>
<td>Clause</td>
<td>Submitter</td>
<td>Submission</td>
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<td>previous financial year; and</td>
<td>Disagree. Refer response to item 110.</td>
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<td>an explanation of any material variances</td>
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<td>outcomes expected to be achieved in the</td>
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<td>new financial year.”</td>
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<td>209</td>
<td>12</td>
<td>EEA</td>
<td>The Bill should specify and clarify the intent that the annual consultations on EECA’s appropriations include details about EECA’s draft work programme, show the proposed amounts for each levy and stipulate which levy will be used for each activity. Recommend adding the following to clauses 6 and 12:</td>
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<td>• for each activity, the levy revenue allocated and the actual spending for the previous year, with explanations on any discrepancies between EECA’s budget and actual spending</td>
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<td>• EECA’s work programme and the proposed levy amounts and allocation for the new year, with explanations for the rationale behind each activity in light of the Treasury’s Guidelines and the New Zealand Energy Strategy; and</td>
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<td>an analysis of the energy efficiency achievements made in the past year, where practicable broken down by activities, and new energy efficiency targets for the new year.</td>
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<td>210</td>
<td>12</td>
<td>MEUG</td>
<td>Concerned about cross-subsidisation between levy payers. EECA’s activities can have wider benefits than just for levy payers, or benefits that are distributed across the broader economy. Some of EECA’s funding goes to individual companies that</td>
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<td>then receive private benefit. Reducing the quantum of levy on electricity users is supported as it should reduce (but not remove) this problem. There is a need to promote transparency and accountability for how effectively EECA is spending levy payer funding. Recommend adding the following to clauses 6 and 12: In 129A(2), add to the end: “…including an assessment of a Whether there is any cross-subsidisation between levy payers; and b Classification and justification for assigning proposed work programmes as either a “wider public good” or a “private good” or a combination of those given only public goods specific to the energy form levied can be paid by a levy on users.” A new clause 129(2A) to be inserted that: “The EECA must publish as soon as practicable ahead of consulting on an appropriation for a forthcoming year a list of parties that received payments from a levy funded work programme in the year just ended, the quantum of those payments, and qualify the efficiencies expected or achieved from that payment.”</td>
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<td>211</td>
<td>12</td>
<td>MGUG</td>
<td>Do not support.</td>
<td>Noted.</td>
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<tr>
<td>212</td>
<td>12</td>
<td>MIA</td>
<td>There needs to be more transparency and accountability. Recommend adding the following to clauses 6 and 12: • The forecast spending outturn against the spending activities approved for the previous financial year; and • An explanation of any material variances between approved spending and forecast; and • The energy efficiency outcomes achieved from that</td>
<td>Disagree. Refer response to item 110.</td>
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<td>213</td>
<td>12</td>
<td>Trustpower</td>
<td>Support, but urge EECA to consult on overall work programme, not only those programmes and activities which are attributable to a given levy. Regular reporting on projected results and ex-post outcomes would provide a wider range of info for business decision-making. This would assist not only the targeting of future EECA work programmes, but with encouraging market-driven innovation focussed on energy efficiency.</td>
<td>Disagree. Refer response to item 110.</td>
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<td>217</td>
<td>14</td>
<td>BusinessNZ MGUG</td>
<td>Do not support.</td>
<td>Noted.</td>
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<td>219</td>
<td>15</td>
<td>BusinessNZ</td>
<td>Do not support.</td>
<td>Noted.</td>
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<td>220</td>
<td>15</td>
<td>MGUG</td>
<td>The obligation on EECA to consult on its work programme will only begin in 2018/19, hence the levy amount in 2017/18 has been set without any analysis/confirmation that the benefits will exceed the costs. It appears that EECA considers it is not obliged to because the amount allocated to gas has been set by the</td>
<td>Despite there being no requirement for EECA to consult on the gas and PEFML amounts for 2017/18, it did undertake some consultation on its work plan with the relevant proposed levy payers. Cabinet agreed to the proposed allocations for 2017/18 (40 per cent of levy funding from the electricity levy, 50 per cent from the PEFML, and 10 per cent from the gas levy) on the</td>
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<td>basis that they broadly reflected the current energy mix and EECA’s indicative work programme. Cabinet agreed to the initial allocations to enable a smooth transition to the new levy arrangements.</td>
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### Part 3 – Amendment to the Land Transport Act 1998

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<tr>
<td>301</td>
<td>AA</td>
<td>Supportive of the intent of this amendment. Seeing EVs travelling in transit lanes will help encourage some to consider purchasing an EV, where practical, in order to enjoy faster commuting times.</td>
<td>Noted.</td>
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<tr>
<td>302</td>
<td>AA</td>
<td>Based on overseas jurisdictions, note that the use of transit lanes should be seen as temporary until a certain volume of EVs is reached. RCAs should be encouraged to introduce such bylaws fully in the expectation that they will eventually have to withdraw them, although this could be applied on a corridor-by-corridor basis.</td>
<td>Noted. RCAs can phase this initiative out through their bylaw making process when they believe that it is having detrimental effects to their transport priorities.</td>
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<tr>
<td>303</td>
<td>AA</td>
<td>Certain criteria to identify suitable transit lanes should be universally applied by RCAs. So that, for example, it does not negatively impact on bus travel times or travel times for traffic in the general lanes (as EVs will have to frequently re-enter the general lane in order to pass a stationary bus).</td>
<td>Noted. The NZTA and AT have developed a viability assessment methodology that will enable RCAs to comprehensively consider all safety and performance factors when considering whether to open special vehicle lanes to EV access.</td>
</tr>
<tr>
<td>304</td>
<td>AA</td>
<td>Consideration needs to be given to excluding bus lanes that have a high volume of cyclists, as silent EVs are hard to detect (unlike buses).</td>
<td>RCAs will have the ability to balance their transport priorities and make their own decisions on a lane-by-lane basis. The same issue with noise has existed for more than 10 years with conventional hybrids. However, many EVs generate an artificial sound as a pedestrian safety measure.</td>
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<td>305</td>
<td>AA</td>
<td>Robust, proportionate enforcement will be essential to the successful application this initiative and that RCAs will need to be provided with clear guidance on enforcement. Currently, transit lane enforcement is predominantly conducted</td>
<td>Noted. To enforce this initiative, enforcement officers or approved RCA staff will be able to check the vehicles licence plate against the Motor Vehicle Register (MVR). The MVR will show whether the vehicle is an EV or not.</td>
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<td>306</td>
<td>AA</td>
<td>Need for a public information campaign so that other motorists understand why some cars are using transit lanes, as not everyone will recognise them as EVs, and how this is being fairly enforced.</td>
<td>The MVR also shows the owner of the vehicle enabling a fine to be sent to them if necessary. Officials are recommending an amendment to improve the ability for RCAs to enforce the correct use of these lanes. The proposed amendment provides that an image taken by approved vehicle surveillance equipment can be evidence of the unauthorised use of a special vehicle lane (refer item 354). As well as enabling electronic monitoring, work is currently underway to improve the quality of EV information in the MVR. RCAs are responsible for the enforcement of special vehicle lanes and ANPR technology is available to RCAs coupled with access to the MVR.</td>
</tr>
<tr>
<td>307</td>
<td>AA</td>
<td>EV markings should be placed at regular intervals on the transit lanes, especially at every entry point.</td>
<td>Noted. This is appropriate on a local level and is not necessary nationwide, as a number of RCAs do not have special vehicle lanes.</td>
</tr>
<tr>
<td>308</td>
<td>ARPHS</td>
<td>Does not support this initiative, as this would adversely affect the efficiency of existing transport networks and strategies designed to enhance overall mobility. It recommends the committee removes the initiative from the Bill, and consider other incentives.</td>
<td>Disagree. Refer response to item 304.</td>
</tr>
<tr>
<td>309</td>
<td>ARPHS</td>
<td>There are many health benefits to society by moving to EVs e.g. cleaner air less emissions etc.</td>
<td>Noted. The Government’s objective in increasing EV uptake is primarily to reduce emissions, and it will also bring air quality</td>
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<td>However, argue that this initiative will have a negative effect on the efficiency of Auckland’s transport network and could also disrupt other transport initiatives designed to promote sustainable mobility. This initiative will also incentivise those that live close to special vehicle lanes to switch from public transport and active modes to using EVs due to potential time savings. It may benefit EV users but increase the amount of vehicles on the road. The increased congestion will have negative health effects. It will increase travel times for the majority of drivers, thus increasing physical inactivity, commuting-related mental health disorders and stress. It will also increase total energy consumption for the road transport system which will increase GHG emissions.</td>
<td>benefits. The larger uptake of EVs will help reduce emissions and create better air quality.</td>
</tr>
<tr>
<td>310</td>
<td>ARPHS</td>
<td>Note from the Norway experience of this policy that instead of EVs replacing conventional vehicles, EVs in Norway have become additional cars in prosperous households.</td>
<td>Noted. The package of incentives given to EV owners in Norway is much more extensive than that in New Zealand (e.g. Norway incentives include subsidies, free use of toll roads and ferries). This may have driven the trend ARPHS has noted.</td>
</tr>
<tr>
<td>311</td>
<td>ARPHS</td>
<td>This initiative is essentially subsidising the rich to own expensive cars and bypass traffic at the expense of everyone else i.e. it is not even a user-pays/tolled system.</td>
<td>Noted. The prices of EVs are falling and in many instances comparable to conventional vehicles. A low mileage 2011 Nissan Leaf can now be bought from $13,000.</td>
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<tr>
<td>312</td>
<td>AT</td>
<td>Supports the proposal to enable, rather than require, RCAs to allow EVs to be used in special vehicle lanes.</td>
<td>Noted.</td>
</tr>
<tr>
<td>313</td>
<td>AT</td>
<td>Acknowledges that the substantive changes to provide for EVs in special vehicle lanes will be made by amendments to the Land Transport Rules. Awaits the release of the proposed rule amendments in order to understand the detail of the proposal.</td>
<td>Noted. The detail of what the proposed Rule changes will look like is reflected in website material and email content (provided to interested stakeholders on 10 January 2017).</td>
</tr>
<tr>
<td>314</td>
<td>AT</td>
<td>Consider that the definition of an EV needs to be amended to include plug-in hybrid vehicles that meet a particular CO2 emissions standard or age limit so that benefits are being provided to those making a genuine emission reduction.</td>
<td>Disagree. The purpose of the EV package is to support the move to a new form of vehicle technology which will reduce emissions overall.</td>
</tr>
<tr>
<td>315</td>
<td>AT</td>
<td>Allowing EVs to access Auckland special vehicle lanes will negatively affect its ability to deliver public transport services and will cause safety concerns. For example, EVs would be delayed in RCAs will have the ability to balance their transport priorities</td>
<td>Noted. Refer response to item 304.</td>
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<td>316</td>
<td>AT</td>
<td>The introduction of EVs into special vehicle lanes will create enforcement issues (added time and costs). This is because of a lack of external indicator making it hard to differentiate between an EV and non EV.</td>
<td>Noted. Refer response to item 305.</td>
</tr>
<tr>
<td>317</td>
<td>AT</td>
<td>Believe that due to the lack of external indicators on EVs it will also create road user confusion and other road users will presume the lane is open for them to use (in Auckland some special vehicle lanes are not 24 hour lanes which may increase confusion).</td>
<td>Noted. Refer response to item 307.</td>
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<tr>
<td>318</td>
<td>AT</td>
<td>Believe that this initiative will erode national consistency when it comes to special vehicle lanes as some RCAs may allow EVs into these lanes while others may not. This could add to road user confusion in relation to the policy.</td>
<td>Disagree. Currently, to enable RCAs to balance their respective transport priorities, they can apply different rules to different lanes across their jurisdiction. Refer response to item 307.</td>
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<td>319</td>
<td>Bus and Coach Association</td>
<td>Opposes this initiative. While it might be a successful strategy to encourage the uptake of EVs, the policy is likely to have significant negative impacts if it is successful.</td>
<td>Noted. Refer response to item 304.</td>
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<td>320</td>
<td>Bus and Coach Association</td>
<td>The purpose of these lanes is primarily congestion reduction. Allowing EVs access to these lanes will not contribute to these outcomes, and will likely undermine them over time (e.g. efficiency benefits for public transport will be lost and the benefit to EV owners will be significantly reduced).</td>
<td>Noted. Refer response to item 304.</td>
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<td>321</td>
<td>Bus and Coach Association</td>
<td>Notes the Norway experience and in particular described its weaknesses when EV numbers exponentially grow which is now causing major issues for the punctuality of bus services.</td>
<td>Noted. Refer response to item 302 and 304.</td>
</tr>
<tr>
<td>322</td>
<td>Bus and Coach Association</td>
<td>Over time this initiative can be expected to make public transport less attractive in our cities, and ultimately be detrimental to achieving transport and land use outcomes.</td>
<td>Noted. Refer response to item 302.</td>
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<td>323</td>
<td>ChargeNet</td>
<td>Support inclusion of transport that lowers carbon emissions in special vehicle lanes, only as and where recognised as appropriate for the region by local transportation authorities discretion and autonomy, and see no short-term issue with the amendment. Note that this policy has been successful in overseas jurisdictions like Norway but has been part of policy package that included significant tax breaks at point of purchase for new EVs.</td>
<td>Noted. Refer response to item 302.</td>
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<td>324</td>
<td>Ecotricity</td>
<td>Supports the Bill but would prefer it mandatory to allow EVs in special vehicle lanes and not be left up to local councils to make decisions.</td>
<td>Disagree. The Government decided to allow RCAs to opt-in to this initiative as RCAs need to have the ability to balance their transport priorities and make their own decisions on a lane-by-lane basis.</td>
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| 325  | Flip the Fleet | Provided the results of a survey that went to 39 low emission vehicle owners (LEVs). The survey asked ‘The Ministry of Transport is considering enabling RCAs to allow EVs access to special vehicle lanes’. Feedback was provided using a 1 – 5 scoring system (1 being a great idea – 5 being a horrible idea). Nineteen respondents (63 per cent) thought the initiative is a ‘great’ or ‘good’ idea, compared to 7 (23 per cent) who think is a ‘bad’ or ‘horrible’ idea. Feedback from some survey respondents noted that a need to prioritise public and shared transport above LEVs, even though LEVs should be prioritised above single drivers of internal combustion vehicles. However others argue that it will have little effect to congestion in special vehicle lanes. Other observations from some survey respondents:  
- improved visibility to give people confidence in their utility was a common reason for support in allowing them into restricted lanes  
- the goal of reduced emissions will be achieved by more EV demand – this initiative will help incentivise others as it raises the profile of EVs  
- will help start something bigger, to open the door for other proactive strategies like financial subsidies  
- it is fair to reward EV owners as they are helping the environment but others felt that those who cannot afford an EV should also be incentivised if they carpool or take public transport (priority to discourage single commuters)  
- special vehicle lanes are concentrated in congested areas where noise and exhaust pollution are worst so incentivising people to... | Noted. This is just one part of the EVs Programme, which is package of measures announced by the Government in May 2016 that aims to increase the uptake of EVs. Refer response to item 302, 304 and 305. |
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| 326  | GWRC      | Switch to EVs in these lanes is well targeted  
• good to enable the RCA to decide, as it will be different across the country  
• should include a sunset clause so that the policy can be reversed to allow flexibility if EV numbers create congestion in these lanes  
• there may be some negative sentiment to EVs as they may create congestion in special vehicle lanes  
• PHEVs could be running petrol or have low proportion of travel in EV mode and therefore misuse the lanes  
• will be hard to enforce these lanes and it may encourage non-EVs to game the system – may need increased investment in enforcement  
• low cost initiative, but not enough to encourage environmentally ‘neutral’ people to consider an EV  
• the initiative will create a safety risk for pedestrians: “Increased danger from stepping in front of quietly approaching EVs”. |
| 327  | GWRC      | Opposes clauses 16 and 17. This initiative has the potential to increase road congestion and negatively impact public transport services without providing significant time savings to electric car drivers.  
Some bus lanes (one type of special vehicle lane) already allow a number of other road users such as motorcyclists and taxis; allowing EVs will reduce the benefit to these existing users and have negative impacts to safety.  
This initiative may not result in significant travel time savings or be an effective incentive as EV drivers will need to merge back into general traffic flows when buses stop along the length of bus lanes. |
<p>| 328  | GWRC      | EVs are generally quiet, the safety risk to cyclists in particular will increase which may reduce the attractiveness of cycling. |
|      |           | It will be hard to enforce this initiative as it is hard to differentiate types of vehicles from a distance which may cause confusion amongst other road users. | Noted. Refer response to item 304. | Noted. Refer response to 304. | Noted. Refer response to item 305. |</p>
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<td>330</td>
<td>Laurence Jenner</td>
<td>This initiative will not be effective on its own but supports it with a number of new additions to the Bill (refer item 014).</td>
<td>Noted.</td>
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<td>331</td>
<td>LGNZ</td>
<td>The power to make bylaws to give EVs access to special vehicle lanes is already fully available. Clause 17 does not clarify this in any way.</td>
<td>Disagree. There are concerns that a RCA could not rely on the phrase “vehicles of other specified classes” in the current section 22AB(1)(r) for making bylaws relating to EVs, on the basis that phrase is informed by the references to buses and taxis immediately preceding it. This amendment deals with ambiguity in the interpretation of the current wording by effectively clarifying that the phrase “vehicles of other specified classes” is not limited by the references to buses and taxis.</td>
</tr>
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<td>332</td>
<td>LGNZ</td>
<td>Generally supports the proposal to enable, rather than require, RCAs to allow EVs to be used in special vehicle lanes. Balancing transport objectives requires adequate regulatory management and enforcement. For example, the challenge of distinguishing electric and hybrid vehicles from petrol vehicles in their use of bus lanes (particularly from a distance) and may cause confusion among other drivers about the purpose of bus lanes.</td>
<td>Noted. Refer response to item 305.</td>
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<tr>
<td>333</td>
<td>MIA</td>
<td>Supports the proposed changes in clause 16-17 in their entirety, along with all of the further Rule changes required to implement this policy.</td>
<td>Noted.</td>
</tr>
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<td>334</td>
<td>Michael Mellor</td>
<td>This proposal does nothing to address any of the barriers to the uptake of EVs.</td>
<td>Disagree. The measures implemented in this Bill are part of a package of measures in the Government’s EVs Programme, which was developed with the aim of increasing the uptake of EVs.</td>
</tr>
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<td>335</td>
<td>Michael Mellor</td>
<td>Bus lanes exist to make bus travel more attractive by making bus services less affected by congestion, among other things. Bus lanes are also often used as cycle lanes, and increased and less predictable traffic such as EVs in such lanes is likely to create increased risk, discouraging use of that mode. This initiative may well increase overall congestion in places and</td>
<td>Noted. Bus lanes are only one type of special vehicle lane. Refer response to item 304.</td>
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<td>336</td>
<td>Michael Mellor</td>
<td>RCAs are unlikely to make any great use of this initiative. Further to this, notes the comments of the Chair of Wellington City Council’s Transport and Urban Development Committee about the initiative and in particular, that if some vehicles start using bus lanes because they are electric there is a greater risk that others which are not electric will do so too.</td>
<td>Refer response to item 305.</td>
</tr>
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<td>337</td>
<td>Michael Mellor</td>
<td>The proposal will cost money for little (if any) benefit.</td>
<td>From international experience (Norway, California), this initiative is understood to be one of the most effective non-financial incentives to help promote the uptake of EVs.</td>
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<td>338</td>
<td>Michael Mellor</td>
<td>If the number of EVs increases to any great extent and they use special vehicle lanes, those lanes will become inefficient. In that case, the only rational response will be to remove EVs from these lanes (as is already happening in Norway). This may not be easy to implement, particularly if people have acquired EVs on the premise that they could be used in such lanes.</td>
<td>Noted. Refer response to item 302.</td>
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<tr>
<td>339</td>
<td>MTA</td>
<td>Oppose.</td>
<td>Noted. Refer response to item 304 and 305.</td>
</tr>
<tr>
<td>340</td>
<td>Nelsust</td>
<td>This initiative is a poor way to promote the use of EVs because of its unintended consequences. It will make city congestion worse, by encouraging more people to car commute into the city. Allowing low occupancy vehicles of any type into these lanes must at sometimes slow up buses and high occupancy vehicles, making these less efficient, but also making these more sustainable transport options no better than single occupant driving in ordinary lanes.</td>
<td>Noted. Refer response to item 304.</td>
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<tr>
<td>341</td>
<td>Nelsust</td>
<td>Clauses 16 and 17 should be deleted from the Bill and replaced with a “feebate” on any vehicle sold, both new and second hand,</td>
<td>Disagree. Refer response to item 003.</td>
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<td>342</td>
<td>NZ Motor Caravan Association</td>
<td>Do not believe that the source of the energy to power vehicles should be a factor that decides which vehicles may use special vehicle lanes. Special vehicle lanes were introduced to enable greater efficiencies for certain vehicle types. If, and when, the number of EVs reaches the anticipated numbers it will progressively impede the flow and efficiency of these lanes. Therefore, special vehicle lanes should remain solely for the use of those special vehicles except for emergency vehicles when travelling to an emergency. When special vehicle lanes are congested it will be necessary to remove the right for EVs to use these lanes and the operators of these vehicles will be reluctant to accept such a change. Granting EVs the right to these lanes will be a form of discrimination against those who are unable to afford to purchase EVs and who must therefore use the normal traffic lanes and suffer the delays caused by the congestion whilst those with EVs will be able to use the special vehicle lanes. This will result in greater congestion at the point where these lanes converge and therefore further slowing the traffic in the normal lanes. It therefore does not support clause 16 and 17.</td>
<td>Disagree. The purpose of the EV package is to support the move to a new form of vehicle technology which will reduce emissions overall. Refer response to item 302 and 304. The prices of EVs are falling and in many instances comparable to conventional vehicles.</td>
</tr>
<tr>
<td>343</td>
<td>RCA Forum</td>
<td>The power to make bylaws to give EVs access to special vehicle lanes is already fully available. Clause 17 does not clarify this in any way.</td>
<td>Disagree. Refer response to item 331.</td>
</tr>
<tr>
<td>344</td>
<td>RCA Forum</td>
<td>This initiative has the potential to increase road congestion and negatively impact public transport services without providing significant time savings to electric car drivers. Some bus lanes (one type of special vehicle lane) already allow a number of other road users such as motorcyclists and taxis; allowing EVs will reduce the benefit to these existing users and have negative impacts to safety. This initiative may not result in significant travel time savings to be an effective incentive as EV drivers will need to merge back into</td>
<td>Noted. Refer response to item 304.</td>
</tr>
<tr>
<td>Item</td>
<td>Submitter</td>
<td>Submission</td>
<td>Officials’ comments</td>
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<tr>
<td>345</td>
<td>RCA Forum</td>
<td>EVs are generally quiet, the safety risk to cyclists in particular will increase which may reduce the attractiveness of cycling.</td>
<td>Noted. Refer response to item 304.</td>
</tr>
<tr>
<td>346</td>
<td>RCA Forum</td>
<td>It will be hard to enforce this initiative as it is hard to differentiate types of vehicles from a distance which may cause confusion amongst other road users.</td>
<td>Noted. Refer response to item 305.</td>
</tr>
<tr>
<td>347</td>
<td>Stephen Crowsen</td>
<td>Currently it is not easy for both law enforcement officers and other road users to distinguish legitimate lane users from non-legitimate users. One problem with this initiative is a problem with identification of EVs in respective special vehicle lanes. Suggests some sort of indication or label or insignia displayed on the front and rear of the permitted bus lane use vehicle, e.g. a Green Registration type label that shows that particular vehicle is entitled to use the bus lanes. Not all special vehicle lanes are the same e.g. there are different times when they operate as a bus lane or have a certain number of occupants allowed in them. Biggest concern is having EVs operating in a large bus stop + bus lane environment during times of severe congestion.</td>
<td>Noted. Refer response to item 304 and 305.</td>
</tr>
<tr>
<td>348</td>
<td>Te Rūnanga</td>
<td>Supports the proposed amendment under clause 17.</td>
<td>Noted.</td>
</tr>
<tr>
<td>349</td>
<td>Trustpower</td>
<td>Content with clause 16 and 17.</td>
<td>Noted.</td>
</tr>
<tr>
<td>351</td>
<td>WRC</td>
<td>Supports the proposal to enable, rather than require RCAs to allow EVs to be used in special vehicle lanes.</td>
<td>Noted.</td>
</tr>
<tr>
<td>352</td>
<td>WRC</td>
<td>Several RCAs in its region feel that EVs are more likely to use special vehicle lanes during peak travel times, when the lanes are already losing efficiency by current vehicles using them.</td>
<td>Noted. Refer response to item 304.</td>
</tr>
<tr>
<td>353</td>
<td>WRC</td>
<td>Concerned that enforcement may not be practical once the criteria for use of special vehicle lanes expands to include an unknown variety of EVs. This may also cause confusion amongst the general public. It will be difficult for enforcement authorities to differentiate between EVs and non-EVs.</td>
<td>Noted. Refer response to item 305.</td>
</tr>
<tr>
<td>354</td>
<td>Departmental</td>
<td>Recommend that section 145 of the Land Transport Act is</td>
<td>This will improve an RCA’s ability to enforce the correct use of</td>
</tr>
<tr>
<td>Item</td>
<td>Submitter</td>
<td>Submission</td>
<td>Officials’ comments</td>
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<td>amended to permit an image taken by approved vehicle surveillance equipment to be evidence of the unauthorised use of a special vehicle lane.</td>
<td>special vehicle lanes.</td>
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</tbody>
</table>

**Part 4 – Amendments to the Road User Charges Act 2012**

<table>
<thead>
<tr>
<th>Item</th>
<th>Submitter</th>
<th>Submission</th>
<th>Officials’ comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clauses 18-19</td>
<td></td>
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</tr>
<tr>
<td>401</td>
<td>AA</td>
<td>Note that 81 per cent of AA members have said that the RUC exemption was either a ‘small benefit’ or a ‘really important’ reason for buying an EV (it is unclear whether this also includes the RUC exemption for heavy EVs).</td>
<td>Noted.</td>
</tr>
<tr>
<td>403</td>
<td>AT</td>
<td>The definition of a heavy electric RUC vehicle needs to be amended to include plug-in hybrid vehicles that meet a particular CO2 emissions standard or age limit so that benefits are being provided to those making a genuine emission reduction.</td>
<td>Disagree.</td>
</tr>
<tr>
<td>404</td>
<td>Bus and Coach Association</td>
<td>Supports this proposal as it will significantly reduce the operating cost of electric buses. Electric buses (heavy EVs) will comparatively pay more RUC compared to diesel buses due to their greater weight for an equivalent vehicle. The RUC exemption will provide a significant reduction to the operating cost of electric buses – making them more commercially attractive.</td>
<td>Noted.</td>
</tr>
<tr>
<td>405</td>
<td>Bus and Coach Association</td>
<td>Critical that the expiry dates for this initiative provides enough certainty for operators to invest in electric buses. Buses are a long-life asset, with an expected operating life of 20 years. Furthermore</td>
<td>Noted. The Government sought to balance encouraging early adopters of heavy EVs with the overall expectation that road users pay for the roads.</td>
</tr>
<tr>
<td>Item</td>
<td>Submitter</td>
<td>Submission</td>
<td>Officials’ comments</td>
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<tr>
<td>406</td>
<td>GWRC</td>
<td>Strongly supports the intent to incentivise uptake of EV technology amongst heavy vehicles. Understand the need to set thresholds for the RUC exemption but feels the threshold of having a minimum two per cent of heavy EVs should be higher. Given the make-up of the heavy vehicle industry, fleet purchasing decisions by a small number of major operators could achieve the two per cent target and could be a disincentive to uptake. The RUC exemption for heavy EVs should be applied for a specified time period, rather than contingent on achievement of a target, and a more ambitious target should be set.</td>
<td>Noted. Refer response to item 405.</td>
</tr>
<tr>
<td>407</td>
<td>Jean Linda Gorman</td>
<td>The two per cent proviso in this section of the Bill makes a mockery of the Bill’s objective given any fleet with under 50 vehicles by adding a single vehicle makes their fleet already over the two per cent mark, and large fleet owners are likely to add more than one vehicle at a time. Submit that the two per cent provision be deleted entirely in order to genuinely encourage energy innovation.</td>
<td>The two per cent threshold applies to New Zealand’s total heavy vehicle fleet, not any particular company fleet. Refer response to item 405.</td>
</tr>
<tr>
<td>408</td>
<td>Laurence Jenner</td>
<td>This initiative will not be effective on its own but supports it with a number of new additions to the Bill.</td>
<td>Disagree. See the comments numbered 700 and onwards for analysis of wider submissions.</td>
</tr>
<tr>
<td>409</td>
<td>MTA</td>
<td>Oppose. The purpose of the RUC Act (which is to impose charges on RUC vehicles for their use of the road). Note that no matter what its motive power, the damage caused to the road will be the same.</td>
<td>Noted. Refer response to item 405.</td>
</tr>
<tr>
<td>Item</td>
<td>Submitter</td>
<td>Submission</td>
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<tr>
<td>410</td>
<td>Peter Buchanan</td>
<td>Considers that the exemption needs to achieve a sustainable tipping point of 25 per cent before incentives are withdrawn. This would show the government's long-term intention that the majority of our transport fleet transition to electric.</td>
<td></td>
</tr>
<tr>
<td>411</td>
<td>RCA Forum</td>
<td>Generally support measures to create incentives for the uptake of heavy EVs, but retains concerns over the practical application of this threshold. Having the two per cent target determining how long the RUC exemption remains in force is likely to be a disincentive to uptake after an initial rush.</td>
<td></td>
</tr>
<tr>
<td>412</td>
<td>RCA Forum</td>
<td>Note that the definition of a heavy EV needs to be amended to include plug-in hybrid vehicles that meet a particular CO2 emissions standard or age limit, in order to ensure benefits are being provided only to those vehicles making a genuine emission reduction.</td>
<td></td>
</tr>
<tr>
<td>413</td>
<td>RCA Forum</td>
<td>Submit that the RUC exemption for heavy vehicles should be applied for a specified time period, rather than being contingent on achievement of a target.</td>
<td></td>
</tr>
<tr>
<td>414</td>
<td>RCA Forum</td>
<td>A package of other measures to encourage uptake of heavy electric vehicles should also be considered. Keeping a separate class for registration purposes for heavy electric vehicles for a specific period (possibly ten to fifteen years) is one example.</td>
<td></td>
</tr>
<tr>
<td>415</td>
<td>Stephen Fletcher</td>
<td>Some plug-in hybrids have a limited range of around 20km with the remaining (unlimited) range fuelled by combustible fuel. Suggest amending the definition of heavy electric RUC vehicle means a RUC vehicle with—(a) a gross vehicle mass of more than 3 500 kilograms; and (b) motive power—(i) wholly derived from an external source of electricity; or (ii) partly derived from an external source of electricity and petrol or other fuel on which excise duty or excise-equivalent duty is payable under the Customs and Excise Act 1996; or (iii) partly derived from an external source of electricity and with</td>
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</table>
### Schedule 1 – Transitional, savings, and related provisions

<table>
<thead>
<tr>
<th>Item</th>
<th>Submitter</th>
<th>Submission</th>
<th>Officials’ comments</th>
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</thead>
<tbody>
<tr>
<td>416</td>
<td>WRC</td>
<td>Strongly supports, however, allowing for a higher percentage of the heavy vehicle fleet before RUC apply to heavy EVs would provide a greater incentive.</td>
<td>Refer response to item 405.</td>
</tr>
<tr>
<td>417</td>
<td>Z Energy</td>
<td>Supports, but notes that there is risk that the proposed heavy EV definition could be exploited relatively simply by those wanting to evade RUC. It would be relatively simple to modify current diesel engine heavy vehicles so that their motive power was partly derived from an external source of electricity.</td>
<td>Disagree. The NZ Transport Agency must certify and register new or modified vehicles as meeting the requirements. We do not consider that there will be significant scope for individuals to falsify or imitate this capability.</td>
</tr>
<tr>
<td>418</td>
<td>Z Energy</td>
<td>The proposed definition of a heavy EV departs significantly from more traditional global definitions which typically refer to the vehicle’s propulsion system being electric rather than focussing on the primary source of the energy. Some of the hybrid vehicles that wish to employ (which believe are a low emission vehicles) do not meet the proposed definition. Submit that a broader definition would extend to vehicles with hybrid power trains and this would have the benefit, at least in the short term, of accelerating the uptake of low emission heavy vehicles and contributing to better environmental outcomes.</td>
<td>Disagree. The focus is on using New Zealand’s renewable electricity resource as a transport fuel, which means that hybrid vehicles which are not externally charged are excluded from these initiatives.</td>
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</tbody>
</table>

### Matters not included in the Bill

<table>
<thead>
<tr>
<th>Item</th>
<th>Submitter</th>
<th>Submission</th>
<th>Officials’ comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>ChargeNet</td>
<td>Generally supports Bill but consider that the legislative environment is unclear, with contradictory positions from primary regulators (the Electricity Authority and the Commerce</td>
<td>This point is discussion in paragraphs 106-113.</td>
</tr>
</tbody>
</table>
### Uptake of EVs in government procurement/private fleets

| ARPHS | Uptake of EVs in government procurement/private fleets will have the benefit of expanding second hand availability of EVs when those fleet vehicles are sold off and replaced. These fleet vehicles will be highly visible to the public which will show a strong lead by example message. | Noted. The New Zealand Government Procurement (NZGP) unit of MBIE has announced that fifteen EVs are now available through the All-of-Government (AoG) Vehicles contract. We anticipate as a result of this more agencies will purchase EVs for their fleets. Additionally NZ has the ability to source second hand EVs through existing used import mechanisms. Sixty percent of current EVs are used imports. |

### Increased uptake of EVs

| Bus and Coach Association | The increased uptake of EVs will only address one issue related to private mobility – that is they have the potential to reduce emissions. However, there are numerous other issues related to society’s desire for personal mobility that are not addressed by EVs, including:  
- obesity caused by inactivity and automobile dependency  
- traffic congestion  
- sprawling land use  
- large areas of land in our cities dedicated to car parking, and  
- road safety impacts. | Noted. The Ministry of Transport has a number of initiatives underway that help address some of these issues, for example, the promotion of active modes of transport and the small passenger service vehicles review. |

### Recommend extending consultation process

| EEA | Recommend extending consultation process to all levies under the Energy (Fuels, Levies, and References) Act to improve transparency, especially for the electricity ‘safety’ levy. | Extending the consultation requirement is out of the scope of this Bill. |

### Further work needs to be done

| ERANZ | Further work needs to be done by regulatory agencies to ensure that business has the confidence to invest. Have concerns that the market is being affected by the current regulatory settings around emerging technology, and seek a review. Has strong concern when regulated monopoly parts of the market (i.e. electricity distributors) are able to participate in competitive parts of the market, but not under the same competitive pressures. For example, others closer to the experience of owning, installing or co-ordinating the rollout of EV charging infrastructure seem to be erring on the side of need to make a clear determination that EV charging infrastructure are “installations” not “works”. | Refer response to item 004 and 501. |
Recommends that the government facilitate a cross-agency (MBIE, Electricity Authority, Commerce Commission) assessment of the regulatory settings for EVs and other emerging technology in energy, to ensure an open, safe and competitive market can develop.

| 506 | Meridian | Aims to take a position of leadership to help educate New Zealanders about the benefits of EVs as a consumer and for the environment. Provides statistics and evidence to support this. | Noted. |
| 507 | MGUG | The current gas levy funds safety-related and inspectorate matters. These activities can be regarded specific to the transport of gas, and as such of a private nature. | Out of scope. |
| 508 | MTA | Suggests that the Government should consider encouraging local and regional councils to invest in electric buses. | Noted. Local and regional councils make their own decisions to balance transport priorities and have the ability to stipulate the emissions requirements bus operators must meet. The Government’s Low Emission Vehicles Contestable Fund provides access to funding – two relevant examples are the following two projects have been conditionally approved: • AT: Demonstration of an electric bus • Tranzit Group Ltd: Demonstration of an electric bus (in association with Auckland University of Technology) More information can be found at: https://www.eeca.govt.nz/funding-and-support/electric-vehicles-programme/ |
FEEDBACK ON PROPOSED RULE CHANGES FOR THE ELECTRIC VEHICLES IN SPECIAL VEHICLE LANES INITIATIVE

Reason for this briefing

To update you on progressing the relevant Rule changes for the 'enabling road controlling authorities to allow electric vehicles into special vehicle lanes' initiative of the Electric Vehicles Programme.

The briefing also provides next steps detailing the implementation of the Rule changes.

Action required

None.

Deadline

None.

Reason for deadline

None.

Contact for telephone discussion (if required)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>First contact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adviser, Land Transport Safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Principal Adviser, People and Environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glen-Marie Burns</td>
<td>Manager, People and Environment</td>
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</table>

MINISTER'S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 12 May 2017

Attention: Hon Simon Bridges (Minister of Transport)

Briefing number: OC04957

Security level: In-Confidence

Minister of Transport's office actions

☐ Noted

☐ Seen

☐ Approved

☐ Needs change

☐ Referred to

☐ Withdrew

☐ Not seen by Minister

☐ Overtaken by events
Purpose of briefing

1. This briefing provides you with:
   1.1. the proposed Rule changes for the ‘enable road controlling authorities (RCAs) to allow electric vehicles (EVs) into special vehicle lanes’ initiative
   1.2. the Rule making process the Ministry of Transport (the Ministry) followed
   1.3. a summary of feedback on the proposed Rule changes and next steps for implementation.

Background

2. On 21 March 2016, Cabinet agreed to:
   2.1. amend the Land Transport Act 1998 (the Act) to clearly empower RCAs to make bylaws allowing EVs to use special vehicle lanes
   2.2. make amendments to the Land Transport (Road User) Rule 2004, and related provisions in the Land Transport Rule: Traffic Control Devices 2004 (Traffic Control Devices Rule), to enable RCAs to allow EVs access to bus and high occupancy vehicle lanes.

3. The Act change is being made through the Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill (the Bill)

4. We are progressing the Rule changes separately, under section 152A of the Act, which will mean that they are made by the Governor-General, on your recommendation, along with an Order in Council exempting heavy electric road user charges (RUC) vehicles from the payment of RUC until the end of 2021.

5. Following these legislative changes, opening up special vehicle lanes to EVs will ultimately be a decision for RCAs, in consultation with their communities.

What do the proposed Rule changes look like?

6. The proposed Road User Rule changes include:
   6.1. adding a definition of EVs; the proposed EV definition is:
   6.1.1. “a motor vehicle with motive power wholly or partly derived from an external source of electricity”
   6.2. altering special vehicle (bus and transit lane) definitions to include EVs as permitted users if RCAs make relevant bylaws; the proposed amendment to the special vehicle lane definition will:
   6.2.1. enable an EV to use a special vehicle lane if it is specifically included by a marking or sign installed at the start of the lane.

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1 This definition aligns with the definition of electric vehicle in RUC legislation and includes vehicles which are powered solely by electric batteries (pure EVs), as well as plug-in hybrid EVs (PHEVs) that operate on a combination of externally charged batteries and a petrol or diesel motor. This does not include conventional hybrids, which have batteries and an electric motor but have no ability to plug in to charge the batteries.
6.3. extending the application of B (bus) traffic signals to EVs where permitted to use bus lanes. The Road User Rule currently identifies lawful users of bus lanes and light rail lines (this also includes cycles, mopeds, motorcycles, unless specifically excluded) and, in consequence, needs to be extended to include EVs.

7. The Traffic Control Devices Rule changes will:

7.1. prescribe the markings and signage necessary to notify road users whether EVs may use special vehicle lanes. In particular, we envisage that the requirements are likely to display the words ‘EV’, which will be fitted on existing signposts or marked on the road.

The Rule process we have undertaken

8. To enable the proposed Rule changes to be implemented as quickly as possible and to allow RCAs to begin setting bylaws, the Ministry followed the rule making process as set out under section 152A of the Act, which empowers the Governor-General to make rules.

9. The normal rule making process is to follow section 152 of the Act, which empowers you as Minister to make ordinary Rules. This process, which does not apply to the Governor-General, requires you to:

9.1. publish a notice of your intention to make the rule; and

9.2. give interested persons a reasonable time, which must be specified in the notice published under paragraph (9.1), to make submissions on the proposal; and

9.3. consult with such persons, representative groups within the land transport system or elsewhere, government departments, and Crown entities as you consider appropriate.²

10. Given that the rule amendments will facilitate policy that has been submitted on to Select Committee and considered by Parliament, further consultation would delay the ability for RCAs to make effective bylaws for any special vehicle lanes they would like to open up to EVs. We consider that further statutory notification and consultation is unnecessary and contrary to the policy objective of implementing the EV Programme initiatives as quickly as possible to encourage EV uptake.³

11. However, consistent with the partnership approach that underlines the EV Programme, in February 2017 we contacted relevant stakeholders to inform them of the proposed Rule changes and asked for their feedback.

12. The timing for these discussions coincided with the submission process for the Bill, so that the Rule changes could be taken to Cabinet Legislation Committee (LEG) immediately after Parliament passes the Bill (following the 1 July 2017 commencement date). This process will allow for bylaws to be passed shortly after legislative changes come into force.

13. Section 152A of the Act requires you, as the Minister responsible for the Rules in question, to submit a paper to LEG recommending the signing of the amended Rules.

² The procedures are noted in section 161 of the Act:

³ RCAs can begin consulting now, if they wish to, although if they do it should be made clear that consultation is subject to the anticipated legislative changes.
What was the feedback on the proposed Rule changes?

14. Twenty-seven parties provided feedback on the proposed Rule changes. Feedback was received from:

14.1. members of the public and technical specialists

14.2. RCAs (including Auckland Transport) and Councils

14.3. the Automobile Association.

15. The majority of the feedback focused on the intent of the special vehicle lane initiative rather than going into detail about the proposed Rule changes. The feedback was primarily related to the effect this initiative would have on other road users and public transport, and is similar to the submissions made on the Bill (many of which were made by the same organisations).

16. The feedback specifically relating to the proposed Rules was generally supportive, however, a number of respondents questioned the proposed EV definition. In particular some respondents:

16.1. wanted to add a minimum power threshold (or minimum battery size), which would be measured by a minimum speed and distance

16.2. wanted a definition that requires a vehicle to meet a specific CO₂ standard

16.3. proposed that an EV should be a vehicle where the propulsion system is electric, rather than the primary energy source, in order to increase the different types of vehicles that would be considered an EV (we assume this is in order to include non plug-in hybrids)

16.4. discussed the enforcement of this initiative and the use of visual identifiers on EVs.

17. The Ministry’s view on the proposed EV definition feedback in paragraphs 16.1 and 16.2 is that specifying a minimum power threshold or specific CO₂ standard would not be consistent with the broad policy objectives of the EV Programme.  

18. In regards to the feedback in paragraph 16.3, we accept that conventional hybrids may offer more emissions reductions compared with petrol and diesel vehicles. However, the objective of the EV Programme is to encourage emissions reductions by transitioning the fleet to a new form of technology powered by renewable energy.

19. The discussion on the enforcement of this initiative and the use of visual identifiers in paragraph 16.4 was also raised in submissions on the Bill. A number of submitters stated that it would be difficult to enforce this initiative, as it difficult to visually distinguish between EVs and other vehicles.

20. Whether or not a vehicle is an EV will be able to be determined by checking its number plate against the Motor Vehicle Register. The Bill also proposes an amendment to the Act to permit an image taken by approved vehicle surveillance equipment to be evidence of the unauthorised use of a special vehicle lane.

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4 Proposed amendments to the EV definition were also raised during the submission process of the Bill, however, Commerce Select Committee has not noted any concerns with the proposed definition.

5 The objective of the EV Programme is to transition New Zealand’s fleet to a new form of transport technology powered by renewable electricity.

6 The NZ Transport Agency is in the process of updating the MVR so that it shows whether or not a vehicle is electric.
21. Detailed feedback on the proposed Rule changes is set out in Appendix 1 and feedback outside the scope of the proposed changes is in Appendix 2.

Next steps

22. As noted earlier, section 152A of the Act sets an alternative rule making process, which empowers the Governor-General to make rules. The table below sets out the indicative timetable for the Rule amendments and the Bill’s commencement date, and provides two options for you to consider. We anticipate option 1 is achievable.

<table>
<thead>
<tr>
<th>Task</th>
<th>Indicative timing</th>
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<tbody>
<tr>
<td>Provide you a draft briefing and LEG paper</td>
<td>Option 1 (preferred)</td>
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<tr>
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<td>Week of 12 June 2017</td>
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<tr>
<td>Submit LEG paper to Cabinet office</td>
<td>29 June 2017</td>
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<td>20 July 2017</td>
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<tr>
<td>Bill comes into force</td>
<td>1 July 2017</td>
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<td>LEG Committee date</td>
<td>6 July 2017</td>
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<td>27 July 2017</td>
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<tr>
<td>Rules come into effect (28 days after</td>
<td>11 August 2017</td>
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<tr>
<td>Orders gazetted)</td>
<td>1 September 2017</td>
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</table>

23. We expect that most RCAs that wish to allow EVs into special vehicle lanes will commence consultation with communities on bylaws once the Rule amendments come into force.

Order in Council

24. The proposed amendments to the Road User Charges Act 2012 (the RUC Act) to implement the RUC exemption for heavy EVs are also being progressed through the Bill.

25. An Order in Council is required to implement the RUC exemption following the Bill’s commencement. We will combine both the Rule changes noted earlier and the RUC exemption into one Order in Council for you to submit to LEG.

Withheld under section 9(2)(a) of the Official Information Act 1982

MINISTER’S SIGNATURE:

DATE: 15 June 17
## Appendix 1 – Feedback on proposed Rule changes

<table>
<thead>
<tr>
<th>Item</th>
<th>Respondent</th>
<th>Feedback</th>
<th>Officials Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Low Volume Vehicle (LVV) Technical Association</td>
<td>Submitter feels the proposed definition needs to be sharpened up and include requirement that the vehicle is able to move under electric power up to a certain speed and for a certain distance. Example: EVs in this context are motor vehicles with motive power wholly or partly derived from an external source of electricity, of sufficient power to propel the vehicle at a minimum of 15km/h for a minimum of 1km. The submittter feels that without this, a small battery and a small additional motor bolted on to a standard non-EV would technically make it a qualifying vehicle, even if it was so minimal it would not move the vehicle.</td>
<td>Noted. Officials consider that encouraging the uptake of vehicles with even limited electric capacity aligns with the overall objective of transitioning New Zealand's fleet to a new form of transport technology powered by renewable electricity. The New Zealand Transport Agency (NZ Transport Agency) must certify and register new or modified vehicles as meeting the requirements. We do not consider that there will be significant scope for individuals to falsify or imitate this capability.</td>
</tr>
<tr>
<td>002</td>
<td>Office of the Privacy Commissioner</td>
<td>Noted as having no concerns from a privacy perspective.</td>
<td>Noted.</td>
</tr>
<tr>
<td>003</td>
<td>New Plymouth District Council</td>
<td>Submitter notes that the proposed changes do not directly affect its jurisdiction, as it does not have any special vehicle lanes. However, the council supports the proposed changes.</td>
<td>Noted.</td>
</tr>
<tr>
<td>004</td>
<td>Principal fleet adviser Z Energy</td>
<td>Submitter feels the proposed definition departs significantly from more traditional global definitions, that typically refer to the vehicle's propulsion system being electric rather than the primary energy source. Z would prefer a broader definition including conventional hybrids to better environmental outcomes. Z feels the proposed definition could be exploited by those wishing to evade RUC by modifying vehicles to fit the definition.</td>
<td>Noted. Refer response to item 001.</td>
</tr>
<tr>
<td>005</td>
<td>Member of the public</td>
<td>Submitter feels that this initiative should include vehicles that are part electric and part fuel, e.g. Toyota Prius and Prius C as these cars are basically the same as full EVs but have a small engine to supplement the charge.</td>
<td>Noted. The conventional hybrid market is relatively well established in New Zealand, the Government’s EV Programme overall objective is to transition New Zealand’s fleet to a new form of transport technology powered by renewable electricity.</td>
</tr>
<tr>
<td>006</td>
<td>Member of the public</td>
<td>Submitter fully supports all of the changes</td>
<td>Noted.</td>
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<td>007</td>
<td>Automobile Association (The AA)</td>
<td>The AA suggests the use of a symbol with a car silhouette and cord and the letters ‘EV’ to identify what lanes an EV can access. Alternatively, it may be possible to use the existing symbol to denote dedicated EV parking or charging. While the symbol is for charging/parking, the AA wonders whether it could become a universally recognised symbol to denote EVs. Marked on a bus lane or transit lane, it is unlikely to be confused as indicating parking or charging nearby. An advantage of this approach is that it won’t result in a plethora of different EV-related symbols for different purposes which may cause confusion for road users e.g. in the same way the bicycle silhouette is used to denote anything to do with cycles (cycle lanes, sharrows, priority signals at traffic lights etc.).</td>
<td>Noted. It is proposed that signs and road markings for bus and transit lanes use the terms “+EV”, “EVs” or “EVs permitted” as appropriate. We believe “+EV” is a simple, easily recognisable symbol that road users will understand.</td>
</tr>
<tr>
<td>008</td>
<td>Christchurch City Council</td>
<td>The Council is supportive of this definition but notes other jurisdictions often use the size of the battery pack as part of the definition (e.g. minimum 8kWh) which precludes most e-bikes, motorcycles and plug-in hybrids. This would be a useful addition to the definition under the Land Transport Rules.</td>
<td>Officials consider that encouraging the uptake of vehicles with even limited electric capacity aligns with the overall objective of transitioning New Zealand’s fleet to a new form of transport technology powered by renewable electricity. The focus of the EV programme is on light and heavy vehicles.</td>
</tr>
<tr>
<td>009</td>
<td>Auckland Transport (AT)</td>
<td>AT recommends a specific CO₂ standard, range or a vehicle age limit is imposed before a plug-in hybrid becomes an EV for the purposes of these proposals or that hybrid vehicles are excluded from the definition of an EV completely. AT would also suggest an additional element to the definition for the purpose of the Road User Rule. The external identification of an EV will be a core requirement for enforcement AT submits that the definition of an ‘electric vehicle’ inserted in the Road User Rule should also require qualifying vehicles to display some specified external indicator, whether that be some sort of EV sticker on the inside of the windscreen and back window, or ideally on the registration plate.</td>
<td>Noted. Refer response to item 008.  The Motor Vehicle Register (MVR) will show whether the vehicle is an EV or not. The eligibility of any vehicle to use a special vehicle lane can be determined by accessing information about it on the MVR using its number plate. The MVR also shows the owner of the vehicle, enabling an infringement notice to be sent to them if necessary.  Officials recommend that a RCA’s ability to enforce the correct use of these lanes be improved by amending section 145 of the Land Transport Act to permit an image taken by approved vehicle surveillance equipment to be evidence of the unauthorised use of a special vehicle lane. This is planned to be added as a clause to the Bill.</td>
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<td>010</td>
<td>Auckland Transport (AT)</td>
<td>The term ‘special vehicle lane’ includes cycle lanes, bus-only lanes, and light rail vehicle lanes that are entirely unsuitable for EVs, so any amendment to allow for EVs should only be made to the specific types of special vehicle lanes intended by the proposal. While AT does not intend to allow EVs in either bus lanes or transit lanes in Auckland, AT submits that the very intent of a bus lane (being to mitigate the impacts of congestion on public transport services) speaks to the unsuitability of increasing the vehicles entitled to use the lane. For this reason, AT submits any proposal to allow EVs access to special vehicle lanes should be limited only to transit lanes. AT also notes that any amendment to these definitions will need to be mirrored in the Land Transport Rule: Traffic Control Devices 2004 (“Traffic Control Devices rule”), as both rules contain identical definitions.</td>
<td>There are some bus lanes where the inclusion of EVs would be likely to negatively affect public transport and other transport initiatives. However, the initiative allows for an opt-in approach where a RCA, when using its bylaw-making powers, can balance other transport objectives when deciding which special vehicle lanes to allow EVs access to in order to deliver the maximum level of total benefit. A RCA authority can therefore allow EVs into special vehicle lanes where (or when) the impact on public transport priorities is below whatever threshold it considers appropriate. In addition, a RCA can phase this initiative out through its bylaw-making process if and when it believes that it is having a detrimental effect on its transport priorities (such as public transport).</td>
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<tr>
<td>011</td>
<td>Auckland Transport (AT)</td>
<td>There is currently no detail of the proposed signage or markings so AT is unable to comment on those proposals. If these definitions are to be amended to refer to EV, then AT submits this rule will also need to contain a definition of “electric vehicle”. Passenger service vehicles, cycles, motor cycles and mopeds can currently be excluded from a special vehicle lane by installing signs at the start of the lane, however, with the possible exception of cycles, the Traffic Control Devices Rule does not currently prescribe the signage necessary to exclude any particular category from a special vehicle lane. To ensure consistency, AT requests that exclusionary signage for these categories be inserted into the schedule as part of the current special vehicle lane amendments. AT also notes that the explanation of R4-7.2 and R4-7.3 in schedule 1 appears incorrect – rather than being available only to “heavy motor vehicles” the signage reserves the lane for “buses”. Finally, AT notes that while signage has been prescribed for a special vehicle lane involving Heavy vehicles, the markings have not been. AT asks that as part of this special vehicle lane amendment, the markings required for a special vehicle lane available to Heavy vehicles be inserted in the schedule to the Traffic Control Devices.</td>
<td>Noted. The signage for EVs is addressed in proposed changes to the Traffic Control Devices Rule as per item 007. Other classes of vehicle can be included or excluded from a special vehicle lane by the RCA making the appropriate bylaw and installing R7-10 general regulatory signs advising road users of the classes of vehicles that are permitted to use the lane. We agree that the description of the R4-7.2 and 7.3 signs should refer to buses rather than heavy vehicles and recommend this be corrected as a consequential amendment. Changes to lane markings for heavy vehicles are outside the scope of changes authorised by this Bill. However, NZ Transport Agency has recently approved “HV” as the road marking symbol for heavy vehicle lanes. (This will be Gazetted on 30 March 2017).</td>
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## Appendix 2 – Feedback outside the scope of the proposed Rule changes

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<th>Item</th>
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<tr>
<td>101</td>
<td>- Low Volume Vehicle (LVV) Technical Association</td>
<td>Submitter asks how would these vehicles be identified? Submitter notes the process of flagging a modified vehicle as plug-in EV could be included in the LVV certification process.</td>
<td>Noted. Refer response to item 009.</td>
</tr>
<tr>
<td>102</td>
<td>(Member of the public)</td>
<td>Submitter feels that EVs should not have a specified lane and notes the Police could use this as revenue gathering.</td>
<td>Noted.</td>
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<tr>
<td>103</td>
<td>(Member of the public and EV owner)</td>
<td>Submitter feels that this policy will have a minor impact to EV uptake but a negative impact to PT.</td>
<td>Noted. Refer response to item 010.</td>
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<tr>
<td>104</td>
<td>Duncan Leighton (Member of the public)</td>
<td>Submitter feels the policy will work with small EV numbers but will create problems once numbers increase.</td>
<td>Noted. A RCA can phase this initiative out through its bylaw-making process if and when it believes that it is having a detrimental effect on its transport priorities (such as public transport).</td>
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<tr>
<td>105</td>
<td>(Member of the public and EV owner)</td>
<td>Submitter believes the policy will impact on the effectiveness of public transport and biking initiatives. Also notes that most of the current EVs look the same as internal combustion engine (ICE) cars. Submitter expects a reasonable proportion of ICE cars would pretend to be an EV, at least on occasion which surely must reduce the effectiveness of the bus lanes for predictable and effective public transport.</td>
<td>Noted. Refer response to item 009 and 010.</td>
</tr>
<tr>
<td>106</td>
<td>(Member of the Public)</td>
<td>Submitter does not agree with the policy and believes it goes against the principle of a high occupancy vehicle lane system.</td>
<td>Noted. The initiative allows for an opt-in approach where a RCA, when using its bylaw-making powers, can balance other transport objectives when deciding which special vehicle lanes to allow EVs access to in order to deliver the maximum level of total benefit. A RCA can therefore allow EVs into special vehicle lanes where (or when) the impact on public transport priorities is below whatever threshold it considers appropriate.</td>
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<tr>
<td>107</td>
<td>(Member of the public)</td>
<td>Submitter supports the push for EVs but does not support them being allowed in bus lanes. Submitter does support them in other special vehicle lanes.</td>
<td>Noted.</td>
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<tr>
<td>108</td>
<td>(Member of the public)</td>
<td>Submitter supports this policy but notes that it is unfortunate that this proposal is not accompanied by direct subsidies and other stimulatory EV measures demonstrated overseas.</td>
<td>Noted. Financial incentives such as subsidies were considered by the Government at the time the EVs Programme was being developed. In general, they were considered unlikely to be the most efficient or desirable way to encourage the uptake of EVs.</td>
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<td>109</td>
<td>Member of the public</td>
<td>Submitter notes that the initiative has significant issues. It also opens up a major anomaly with respect to hybrid vehicles: people driving a hybrid in a special vehicle lane cannot be monitored to check whether they are using electric or fossil fuel power. If hybrid vehicles are allowed to use special vehicle lanes, it is quite conceivable that they could be running only on petrol - providing an unfortunate back door for &quot;cheats&quot;.</td>
<td>Noted. Refer response to item 001.</td>
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| 110  | Flip the Fleet | Provided the results of a survey that went to 39 low emission vehicle owners (LEV's). The survey stated that 'The Ministry of Transport is considering enabling RCAs to allow EVs access to special vehicle lanes', and sought feedback using a 1 – 5 scoring system (1 being a great idea – 5 being a horrible idea). Nineteen respondents (63 per cent) thought the initiative is a 'great' or 'good' idea, compared to 7 (23 per cent) who think it is a 'bad' or 'horrible' idea. Feedback from some survey respondents noted a need to prioritise public and shared transport above LEVs, even though LEVs should be prioritised above single drivers of internal combustion vehicles. However, others argue that it will have little effect to congestion in special vehicle lanes. Other observations from some survey respondents:  
- improved visibility to give people confidence in an EV's utility was a common reason for support in allowing them into restricted lanes  
- the goal of reduced emissions will be achieved by more EV demand. This initiative will help incentivise others as it raises the profile of EVs  
- will help start something bigger, to open the door for other proactive strategies like financial subsidies  
- it is fair to reward EV owners as they are helping the environment but others felt that those who cannot afford an EV should also be incentivised if they carpool or take public transport (priority to discourage single commuters)  
- special vehicle lanes are concentrated in congested areas where noise and exhaust pollution are worst | Noted. This is just one part of the EVs Programme, which is a package of measures announced by the Government in May 2016 that aims to increase the uptake of EVs. The submitters feedback was also provided as part of the Bill. Refer response to item 001, 009 and 010. |
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<td>so incentivising people to switch to EVs in these lanes is well targeted • good to enable the RCA to decide, as it will be different across the country • should include a sunset clause so that the policy can be reversed to allow flexibility if EV numbers create congestion in these lanes • plug-in hybrid vehicles could be running petrol or have low proportion of travel in EV mode and therefore misuse the lanes • will be hard to enforce these lanes and it may encourage non-EVs to game the system – may need increased investment in enforcement • the initiative will create a safety risk for pedestrians: e.g. &quot;increased danger from stepping in front of quietly approaching EVs&quot;</td>
<td>Noted.</td>
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<tr>
<td>111</td>
<td>(Principal fleet adviser Z Energy)</td>
<td>Z believes the Government should take a broader and more phased approach to low emission vehicles</td>
<td>Noted.</td>
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<tr>
<td>112</td>
<td>(Waikato Regional Council)</td>
<td>Submitter notes that whilst the Waikato Region has few special vehicles lanes, a concern felt by several RCAs in our region is that EVs are more likely to use bus and high occupancy vehicle lanes during peak travel times, when these lanes are already losing efficiency through heavy usage by the vehicles currently entitled to use them. There is also doubt that enforcement will be practical once the criteria for use of these lanes becomes extended to include an unknown variety of EVs, which would also cause confusion amongst the general public. These special vehicle lanes have not been designed with this increase in use in mind. Submitter has concerns that it will be difficult for enforcement authorities to differentiate between EVs and non-EVs and as such there may be increased illegal use of special lanes by non-EVs. In addition, as providers and promoters of public transport, the uptake of which has numerous proven benefits to individuals as well as communities and the environment, we have concerns with supporting the uptake of one form of private transport instead of</td>
<td>Noted. The submitters feedback was also provided as part of the Bill. Refer response to item 001, 009 and 010.</td>
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<td>113</td>
<td>NZ Motor Caravan Association Inc.</td>
<td>Submitter does not support the idea that the source of energy to power these vehicles should be the deciding factor that determines which vehicles may use special vehicle lanes and therefore do not favour allowing EVs the right to travel in special vehicle lanes.</td>
<td>Noted. The submitters feedback was also provided as part of the Bill. Refer response to item 001.</td>
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<td>114</td>
<td>(Member of the public)</td>
<td>Submitter feels the economics of such a move are plainly not favourable. Allowing V8s to free-flow in special vehicle lanes whilst congesting EVs clearly makes more sense – less CO2, less fossil fuel consumed. The down side of this however is it promotes the general movement to more V8s. Taking a leaf from the tobacco noose 'high prices reduces use' proven Government model, we could restrict the free-flow lanes to expensive V8s - say European V8s. Solves all the problems. EVs can share the normal car lanes which are now less congested with all the European V8s now travelling in special vehicle lanes. Less CO2 and fossil fuel consumed - everyone will be happy.</td>
<td>Noted. Officials consider that encouraging the uptake of vehicles aligns with the overall objective of transitioning New Zealand’s fleet to a new form of transport technology powered by renewable electricity. Encouraging V8s into these lanes is out of scope of the EV Programme and not a part of Government policy.</td>
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<td>115</td>
<td>(Member of the public)</td>
<td>Submitter feels that this initiative will only end in pain, as more people get EVs and congesting the lanes. Surely the purpose of the lanes is to encourage people to use public transport or car pool so they get to work etc. faster. A vehicle driven by one person in rush hour traffic is still a vehicle driven by one person in rush hour and contributes to congestion regardless of its energy source or environmental footprint. Submitter notes that they would rather have a tax credit for using an EV.</td>
<td>Noted. Refer response to item 010 and 108.</td>
</tr>
<tr>
<td>116</td>
<td>(New Zealand Defence Force)</td>
<td>Submitter generally supports the proposal however recommends that any changes made to the Land Transport Act and its Rules may need to factor in implications relating to Drivers Licence Testing. As an example, a candidate who chooses to drive an EV during the driver’s licence-testing regime, may under the proposed changes, be permitted to use bus lanes and associated traffic lights where under current testing.</td>
<td>Noted. Testing officers always issue specific instructions that direct candidates which lane to drive in and tests are designed to see how candidates manage driving in traffic so they will not direct candidates driving an EV to drive in a bus lane or transit lane.</td>
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<td>117</td>
<td>[Name]</td>
<td>Submitter notes that they support changes that remove inbuilt subsidies to fossil fuelled vehicles, and promote EVs. However, EVs are not wholly benign. They create congestion, require parking space, and when used for commuting, promote an obese lifestyle with associated health costs. EVs should not be promoted at the expense of public transport (or walking/cycling) which this proposal appears to do. Special vehicle lanes and B signals are intended to make public transport and cycling more efficient and attractive. Allowing private vehicles, even if electric powered, to use these facilities lessens their value.</td>
<td>Noted. Refer response to item 010.</td>
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<tr>
<td>118</td>
<td>[Name]</td>
<td>Submitter notes that while the projected benefits of EV use remain only partially realised or still unproven, the FOMC is concerned that artificial and market distorting incentives to encourage earlier adoption could result in unanticipated adverse effects and other damaging consequences. Until any possible advantages have been clearly established and demonstrated EVs should be treated in the same manner as other vehicles and not allowed any privileged use of special vehicle lanes. If they are allowed to do so now, if and when they become more numerous, it may be very difficult to revoke such a special exemption. The energy source should not be the determinant of which vehicles may use special vehicle lanes.</td>
<td>Noted. Refer response to item 010.</td>
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<tr>
<td>119</td>
<td>[Name]</td>
<td>Submitter supports initiatives that encourage electric over fossil fuelled vehicles. However, promoting electric cars at the expense of public and active transport will only foster the continuing over-reliance on personal private transport which takes up valuable road space and encourages sedentary lifestyles. Climate change, and the explosion of obesity and other diseases of...</td>
<td>Noted. Refer response to item 010.</td>
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<td>120</td>
<td>(Christchurch City Council)</td>
<td>inactivity along with increasing congestion on the roads needs more than EVs.</td>
<td>Noted.</td>
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<tr>
<td>121</td>
<td>(Christchurch City Council)</td>
<td>The Council is supportive of the enabling approach but will likely proceed cautiously, collaboratively and tactically before making a decision to allow EVs in bus lanes.</td>
<td>Noted. Refer response to item 010.</td>
</tr>
<tr>
<td>122</td>
<td>(Christchurch City Council)</td>
<td>To support An Accessible City and the Christchurch Central Recovery Plan, rebuild and redesign of the central city road network includes a range of approaches to bus priority measures and not solely designated lanes. The intent of bus priority is to improve the corridor occupancy and trip performance to move large numbers of people in a limited number of vehicles, rather than trying to decrease the emissions generated by the roadway. Christchurch City already has some bus signals on left turn arrows to clear the lane and help the bus move through (bus gates). As EV numbers grow, one risk will be that the effectiveness of 'bus gates' will diminish.</td>
<td>Noted. Refer response to item 009.</td>
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<tr>
<td>123</td>
<td>(Member of the public)</td>
<td>Submitter feels that this initiative could be seen as favouritism. The initiative would create confusion among other road users. The submitter notes that it would be better to give financial incentives such as rebates etc.</td>
<td>Noted. Confusion as to entitlement to use special vehicle lanes is intended to be addressed by clear signage required by new Land Transport Rules (the Rules). The proposal is that the rule change (currently under development) will require a RGA to: a. erect signage displaying what kind of vehicle is</td>
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<td>124</td>
<td>Auckland Transport (AT)</td>
<td>If EVs were entitled to use some special vehicle lanes, enforcement of those not entitled to use the lane would become almost impossible. This is because an EV is not externally recognisable as such so parking wardens (who have legal authority to enforce special vehicle lanes) and enforcement officers could not visually distinguish an EV from another unauthorised user of the lane. While an enforcement officer can require the vehicle to pull over in order to make enquiries as to whether it is an EV, a parking warden cannot. The lack of external indicators for EVs will add considerable time and enforcement costs for local authorities which would count against a RCA allowing EVs into their special vehicle lanes. Adding an external indicator to identify EVs would aid enforcement and also enable other road users to identify the vehicle as an authorised user of the lane and hopefully assist to dissuade unauthorised users from simply following EVs into the special vehicle lane. To assist with automation of enforcement, an external indication located on the vehicle registration plate would be preferable.</td>
<td>Noted. Refer response to item 009.</td>
</tr>
<tr>
<td>125</td>
<td>Auckland Transport (AT)</td>
<td>AT seeks a minor extension of this proposal to enable &quot;B&quot; traffic signals to be used in transit lanes as well as bus lanes. This would require r3.6(5) of the Road User Rule to be amended to refer to transit lanes and not just bus lanes, and also require an amendment to r6.4(10) of the Traffic Control Devices Rule to likewise include a transit lane in addition to a bus lane.</td>
<td>Noted. This is outside the scope of the changes authorised by this Bill and is not in scope of the Rule changes.</td>
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MINISTERIAL BRIEFING NOTE

Subject: Electric vehicles in special vehicle lanes
Date: 11 May 2017
OCU number: BRI-1010

Contact for telephone discussion (if required)

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<th>Name</th>
<th>Position</th>
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<tr>
<td>Robert Brodnax</td>
<td>General Manager, Planning &amp; Investment</td>
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<tr>
<td>Michelle Graham</td>
<td>Project Manager - EVs in special vehicle lanes</td>
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<tr>
<td>Jo Birnie</td>
<td>Project Manager - Pilot</td>
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Action taken by Office of Minister of Transport

☐ Noted
☐ Approved
☐ Seen by Minister
☐ Referred to
☐ Needs change
☐ Withdrawn
☐ Overtaken by events

Withheld under section 9(3)(a) of the Official Information Act 1982
11 May 2017

Minister of Transport

Electric vehicles in special vehicle lanes

Purpose

1. To update you on the pilot allowing electric vehicles (EVs) access to five priority bypass lanes in Auckland, from 6 to 20 March 2017. For locations of lanes, see www.nzta.govt.nz/assets/Uploads/Pilot-Lanes.pdf (as attached).

2. To outline the approach taken in assessing the suitability of New Zealand Transport Agency’s (NZTA) special vehicle lanes for use by EVs, the outcome of this assessment, and next steps.

Background

3. The Ministry of Transport is working on amending legislation and regulation to enable road controlling authorities to make bylaws allowing electric vehicles to use special vehicle lanes. This includes amendments to the Land Transport Act 1998, Land Transport (Road User) Rule 2004 and Land Transport Rule: Traffic Control Devices 2004.

4. The NZTA is committed to supporting and enabling EV uptake and is undertaking a number of projects in parallel with the new legislation. Preparations to enable EV access to suitable special vehicle lanes include:
   • assessing the suitability of NZTA-controlled special vehicle lanes for use by EVs and readying viable lanes;
   • undertaking a pilot allowing EVs access to special vehicle lanes;
   • improvements to the Motor Vehicle Register to enable accurate classification and identification of EVs; and
   • carrying out appropriate bylaw amendments to enable EVs to use suitable lanes.

5. A two week pilot was carried out as part of NZTA’s preparation work.

6. A working group comprising NZTA, Auckland Transport (AT) and Beca experts developed an assessment framework that can be used by Road Controlling Authorities (RCAs) to test and confirm the viability and readiness of special vehicle lanes for use by EVs.

Auckland pilot of electric vehicles in special vehicle lanes—outcomes

7. The Auckland Electric Vehicles Trial (Pilot) Bylaw allowed EVs access to five special vehicle lanes on the state highway network from 6 to 20 March 2017. All the lanes were priority bypass lanes (motorway onramps) and the bylaw was revoked on 21 March 2017.

8. Prior to the pilot, 978 Auckland-based EV owners on the Motor Vehicle Register were sent an information pack about the Government’s Electric Vehicle Programme and invited to participate in the pilot. They were asked to complete a survey at the end of the pilot period which closed on 27 March 2017.

9. The pilot provided valuable insight into the challenges of rolling out long-term EV accessibility to special vehicle lanes, including:
   • testing the concept of EVs in special vehicle lanes;
   • gauging the impact on other road users; and
   • supporting readiness for the early adoption of EVs in special vehicle lanes.

10. The pilot gave NZTA a greater understanding of communications requirements going forward, as well as qualitative information relating to the value of the incentive to EV drivers.
11. Pilot survey results indicated good support for the initiative. A summary of the results can be seen in Appendix A.

Lessons learnt from the pilot

**Enforcement and identification lessons from the pilot**

12. The use of window stickers on EVs for visual identification was of limited value. The pilot confirmed that stickers are not reliable due to window tinting, window shape and inconsistent placement.

13. The registration plate number was confirmed as the most appropriate identifier to be used for enforcement purposes. The pilot indicated that a visual identifier would be beneficial to enable other road users to understand why EVs are accessing special vehicle lanes.

**General lessons from the pilot**

14. Communications for the pilot were targeted at EV drivers and were considered highly effective. Going forward, a broader public awareness campaign will be necessary to ensure the public understand changes to lane access when further lanes are made available to EVs, along with comprehensive engagement with EV owners and lease companies.

15. A number of valuable operational lessons have been captured to inform future implementation requirements, including effectiveness of traffic control devices and timing of lane preparations and communications.

**Consideration of NZTA’s special vehicle lanes for access by EVs**

16. An inventory of all special vehicle lanes on the state highway network has been collated capturing lane specific data such as width, speed, accessibility and traffic volumes. The following is a summary of all NZTA-controlled special vehicle lanes:

   - Auckland (48 = 18 bypass/onramps, 21 bus shoulder lanes, six bus-only onramps and lanes, three T2 (truck lanes)
   - Tauranga (six bus lane segments)
   - Christchurch (14 bus lane segments)
   - Wellington (one bus lane)

17. Each special vehicle lane has been (or will be, in the case of Christchurch, Tauranga and Wellington) assessed using the special vehicle lane viability assessment framework, encompassing the following steps:

   I. initial assessment-accessibility and value to EV drivers;
   II. concept design safety audit-safety for EV drivers and other road users;
   III. safety mitigation—can safety mitigations be implemented in short, medium, long term;
   IV. public transport and productivity assessment-impact on people movement productivity and loss of service. Including performance metrics that would enable NZTA to monitor each special vehicle lane for detrimental impact over time;
   V. re-evaluation of high occupancy—can we adjust T2, T3 to reduce impact; and
   VI. stakeholder assessment—what are the strategic and operational impacts and are there mitigations available within short, medium and long terms.

**Outcome of the special vehicle lane assessment in Auckland**

18. The state highway network controlled by NZTA has a limited number of special vehicle lanes. These lanes, alongside special vehicle lanes controlled by AT, would provide reasonable 'corridors of benefit' to eligible EV drivers. On their own, the NZTA-controlled special vehicle lanes offer a small incentive to EV owners that will likely equate to some encouragement of EV uptake.
19. The assessment process found that, with adequate budget and time, all NZTA-controlled special vehicle lanes in Auckland could be made suitable for access by EVs. However, only 11 lanes were assessed as being able to be ready in time for early uptake and with low cost.

20. The NZTA will prepare 11 priority bypass lanes (motorway onramps or bus-only onramps) for an initial 12 month trial. This will include the five lanes that were temporarily installed and piloted for two weeks in March. The intent of commencing on the basis of a 12 month trial, is so that NZTA can:

- progress automated enforcement for special vehicle lanes by trialling new technologies;
- continue efforts to add additional special vehicle lanes to the trial as these can be made viable;
- continuously monitor any impact on overall productivity as EV numbers grow (responding to key stakeholder concerns about the ability to remove or change the incentive if detrimental impacts are realised); and
- consider transition of the trial lanes into business as usual network management.

21. The Auckland pilot results have given us great confidence that the 11 viable lanes are likely to present a low level of risk, whilst offering some benefits to EV drivers.

22. Enforcement of these lanes will utilise existing processes using the registration plate matched with data held in the Motor Vehicle Register, until an automated enforcement solution can be implemented.

23. The NZTA and cross-agency partners are investigating visual identifiers that will enable other road users to recognise EVs.

24. Aside from the 11 lanes being introduced in the trial, the viability of the remainder of NZTA’s special vehicle lanes are affected by:

- safety issues and/or ‘use of lane’ conflicts, with resolutions ranging from minor to significant, in terms of time and cost; and
- limitations where lane entry must be made via an A special vehicle lane that does not currently allow EV access or via private land (see paragraph 25 below).

25. In relation to the lanes affected by safety issues and/or ‘use of lane’ conflict, the NZTA will carry out a review to determine the broader vision and intent for special vehicle lanes. This involves considering future strategic options for their use. The costs and return on investment of preparing lanes for EV access can then be considered within a wider benefit profile.

a) An example is the 21 emergency stopping lanes (comprising approximately 25 kilometres) that are also utilised as bus shoulder lanes during peak time. In order to make these lanes available to EVs, a decision to upgrade these lanes into ‘proper’ lanes is required. Bringing these lanes up to accepted standard requires a combination of widening, re-surfacing, drainage and other asset modification with costs ranging from $1.5m to $1.8m per kilometre.

26. The Northern Busway viability outcome was mainly affected by accessibility issues.

a) The core issue is that land accessing all but one bus station is sole ownership or fee simple property, in essence, private land (owned by AT) which a driver must have specific permission to access. Until this is resolved the Northern Busway is not accessible to EVs.

b) Work to reduce pedestrian conflict and ease of access and use issues within the bus stations themselves has not been costed due to these fundamental access issues.

c) Should these access issues be resolved, early indications are that aside from some anticipated public transport impact during peak times, safety mitigations within the NZTA busway itself would be approximately $300,000.
Special vehicle lane assessment generally

27. When consulting with relevant RCAs on the special vehicle lane incentive, NZTA identified a clear need to explore a broader application of corridor optimisation on New Zealand’s urban road network. In particular, the use of special vehicle lanes beyond their existing T2/T3 and bus lane only application. Developing a collective position with urban RCAs on future special vehicle lane usage will ensure new innovations (e.g. autonomous vehicles, connected vehicles, managed motorways) can be appropriately balanced with transport outcomes when making planning and investment decisions.

28. A small number of special vehicle lanes exist outside of Auckland. Discussions with city and regional councils in Christchurch, Wellington and Tauranga are in progress. NZTA will provide support to these road controlling authorities as they consider the use of special vehicle lanes, alongside other EV initiatives, to encourage EV uptake.

Next steps

29. NZTA is now preparing a detailed implementation plan for the 11 lanes to be included in the 12 month trial. This plan will confirm the logistics, communications campaign, timeframes and costs involved in preparing the lanes and communicating to road users.

30. The intent is to complete preparation to coincide closely with the Energy Innovation Bill and necessary regulation changes. NZTA will consult on a bylaw that is conditional upon the legislation coming into force.

31. Regular updates are being provided to over 600 identified stakeholders. There has been ongoing direct engagement with key stakeholders such as Bus and Coach Association, New Zealand Police and AT. Targeted discussions with key stakeholders will continue.

32. NZTA is developing an approach that will be used to engage with all urban RCAs to develop a collective policy position and framework for corridor optimisation. The approach will be presented to the Investment and Operations Committee in June 2017.
It is recommended that you:

1. **note** the outcomes of the Auckland EVs in special vehicle lanes pilot.
2. **note** the outcome of NZTA's special vehicle lane assessment process.
3. **note** NZTA's intention to opt in with 11 special vehicle lanes in Auckland for a 12 month trial following the enactment of the enabling legislation and transport rules.
4. **note** NZTA's intent to engage RCAs on the development of a collective position regarding corridor optimisation, in particular special vehicle lanes.
5. **note** that NZTA will continue working alongside Tauranga, Wellington and Christchurch city and regional councils to support and encourage uptake of EVs in special vehicle lanes.
6. **note** the next steps.

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**Robert Brodnax**

Group Manager, Planning and Investment

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**Hon Simon Bridges, Minister of Transport**

Date: 2017
Appendix A

Pilot participant survey feedback

1. 68 people, out of the 978 who received the information pack, responded to the survey.

2. 70 percent of respondents used the specified priority bypass lanes during the pilot period.

3. 78 percent of respondents that were able to use the lanes thought that access to the priority bypass lanes improved their journey. Feedback ranged from “slight improvement” to “speeds up travel considerably”.

4. 80 percent of all respondents would use the five priority bypass lanes if they were made available to EV drivers long-term.

5. 94 percent of all respondents said they would use additional lanes if they were made available to EV drivers long-term.

6. Feedback from the majority of respondents who used the specified priority bypass lanes said they didn’t notice other drivers reacting negatively to their use of the lanes.

7. Other comments received were mostly positive, with a number of respondents specifically requesting that more special vehicle lanes be made available to EVs.

8. Social media was monitored in addition to survey results. Feedback was mixed, with three Facebook pages reviewed: NZTA, NZ EV Owners, and Auckland EV Owners pages.

9. Social media feedback included:
   - “Great initiative”
   - “Would like to see more lanes”
   - “Would like to see blanket T2 acceptance for EVs”
   - “Do not include bus lanes”
   - “Public transport should be a priority”
   - “Won’t reduce traffic congestion”
   - “It’s a benefit for the rich who can afford the vehicles”
   - “It makes no difference as everyone uses the lanes anyway.”

10. A summary of all feedback was published on the NZTA website.
AUCKLAND ELECTRIC VEHICLE TRIAL - ELIGIBLE SPECIAL VEHICLE LANES

T2 and truck lane adjacent to the onramp eastbound from Lincoln Road, to SH16 North Western Motorway (Henderson)

February 2017

17-027

New Zealand Government
AUCKLAND ELECTRIC VEHICLE TRIAL - ELIGIBLE SPECIAL VEHICLE LANES

T2 and truck lane adjacent to the onramp northbound from Coronation Road to South-western Motorway (Mangere/Manukau)

February 2017

New Zealand Government
AUCKLAND ELECTRIC VEHICLE TRIAL - ELIGIBLE SPECIAL VEHICLE LANES

T2 and truck lane adjacent the onramp northbound from Mt Wellington Highway to SH1 Southern Motorway

February 2017

RELEASING UNDER THE OFFICIAL INFORMATION ACT
AUCKLAND ELECTRIC VEHICLE TRIAL - ELIGIBLE SPECIAL VEHICLE LANES

T2 lane adjacent to the onramp Northbound from Rimu Road to SH20 South Western Motorway (Mangere)

February 2017

17-027

New Zealand Government
AUCKLAND ELECTRIC VEHICLE TRIAL - ELIGIBLE SPECIAL VEHICLE LANES

T2 and truck lane adjacent to the onramp northbound from South Eastern Highway to SH1 Southern Motorway (Mt Wellington)

February 2017

17-027
Electric Vehicles - Subordinate Legislation to support Energy Innovation (Electric Vehicles and Other Matters) Amendment Act 2017

Reason for this briefing
This provides you with the necessary material to advance amendments to two land transport rules and a new Road User Charges exemption order to facilitate the use of electric vehicles on New Zealand roads, part of implementing the Electric Vehicles Programme agreed by Cabinet in March 2016.

Action required
Consider this briefing and, sign and lodge the accompanying LEG paper and advice sheets with Cabinet Office.

Deadline
10.00am Thursday 20 July 2017.

Reason for deadline
This is the latest date to lodge a LEG paper to achieve an in force date of 1 September 2017, while complying with the 28-day rule.

Contact for telephone discussion (if required)

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<th>Name</th>
<th>Position</th>
<th>Telephone</th>
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<tr>
<td>David Bowden</td>
<td>Chief Legal Adviser</td>
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MINISTER'S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 12 July 2017
Briefing number: OC05084

Attention: Hon Tim Macindoe (Associate Minister of Transport)
Security level: In-Confidence

Minister of Transport's office actions
☐ Noted
☐ Needs change
☐ Withdrawn
☐ Seen
☐ Referred to
☐ Not seen by Minister
☐ Approved
☐ Overtaken by events
Purpose of report

1. This report provides you with a paper to the Cabinet Legislation Committee asking the committee to authorise the submission to the Executive Council of the following Orders in Council:

1.1. The Land Transport (Road User) Amendment Rule 2017

1.2. Land Transport Rule: Traffic Control Devices Amendment 2017

1.3. The Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017.

2. In addition, this report provides you with advice on the matters that you must consider when recommending that the Governor-General make ordinary land transport rules by Order in Council.

Comment

*The Government’s Electric Vehicles Programme and the Energy Innovation (Electric Vehicles and Other Matters) Amendment Act 2017*

3. Transport makes up around 18 percent of New Zealand’s greenhouse gas emissions. In 2015, the Government identified an opportunity to reduce transport emissions by encouraging New Zealanders to switch to electric vehicles (EVs). Because EVs are powered by externally supplied electricity, which in New Zealand is generated from sources which are at least 80 percent renewable, significant emissions reductions can be achieved.

4. A number of barriers were identified which prevented New Zealanders from switching to electric vehicles. The Government’s Electric Vehicles Programme (the Programme) agreed to by Cabinet on 21 March 2016, to encourage the uptake of electric vehicles (EVs) [CAB-16-MIN-0108.01 refers], is designed to address these barriers. The Programme contained a wide range of measures, two of which require change to transport legislation:

4.1. to clearly empower road controlling authorities to make bylaws allowing electric vehicles to use special vehicle lanes and make amendments to the Land Transport (Road User) Rule 2004 and related provisions in Land Transport Rule: Traffic Control Devices 2004 to enable road controlling authorities to allow EVs access to special vehicle lanes (including bus and high occupancy vehicle lanes)

4.2. exempting operators of heavy electric vehicles from payment of road user charges until heavy electric vehicles comprise two percent of the heavy vehicle fleet (with this exemption initially set to end on 31 December 2025 subject to a review in 2019).

5. The Energy Innovation (Electric Vehicles and Other Matters) Amendment Act 2017 (the Act):

5.1. amends the Land Transport Act 1998 (the LTA) to clearly empower road controlling authorities to make bylaws allowing electric vehicles to use bus lanes and high occupancy vehicle lanes

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1 Further information about the entire package can be found at [http://www.transport.govt.nz/ourwork/climatechange/electric-vehicles/](http://www.transport.govt.nz/ourwork/climatechange/electric-vehicles/), and the Minister of Transport’s press release issued at the launch of the Electric Vehicles Programme is attached as an Appendix to this Briefing Note.
5.2. amends the Road User Charges Act 2012 (the RUC Act) to empower the Governor-General, on the recommendation of the Minister of Transport, to make Orders in Council that specify the period during which road user charges are not payable in respect of heavy electric RUC vehicles.

New subordinate legislation required to fully implement the Government’s Electric Vehicles Programme

6. The Act came into force on 1 July 2017. However subordinate legislation is required to implement the Electric Vehicles Programme as follows:

6.1. amendments to the Land Transport (Road User) Rule 2004 to make it lawful for drivers of electric vehicles to drive in bus lanes and high occupancy vehicle lanes (when permitted by a road controlling authority bylaw).

6.2. amendments to Land Transport Rule: Traffic Control Devices 2004 to prescribe road signs and road markings applicable to the use of electric vehicles (note: the New Zealand Transport Agency (Transport Agency) are developing, with road controlling authorities, signage to advise drivers of electric vehicles when they are permitted to drive in bus lanes and high occupancy vehicle lanes. Specifications of these signs, which will be Gazetted by the Transport Agency when available,² are not available to include in this rule amendment.)

6.3. a new Order under the Road User Charges Act to exempt heavy electric RUC vehicles from payment of road user charges.

Rule amendments

7. The Land Transport (Road User) Rule 2004 (Road User Rule) and Land Transport Rule: Traffic Control Devices 2004 (Traffic Control Devices Rule) are both ordinary land transport rules, made under the LTA:

7.1. although land transport rules are usually drafted by the Transport Agency, the Road User Rule is drafted as a Legislative Instrument by the Parliamentary Counsel Office (PCO)³

7.2. ordinary land transport rules are usually made by the Minister of Transport.⁴ They can, however, also be made by the Governor-General as Orders in Council, on the recommendation of the Minister, under section 152A of the LTA. When a rule is made by Order in Council, statutory requirements concerning public notification and consultation on the proposal do not apply. However, in this instance, the Ministry did seek informal feedback on the proposed rule changes from the general public – and notified key stakeholders of this process.

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² As an interim measure, pending a further rule change, under clause 4.4(4) of the Traffic Control Devices Rule.
³ This is pursuant to a standing written direction of the Chief Parliamentary Counsel under section 59(2)(d) of the Legislation Act 2012.
⁴ Alternatively, through Ministerial delegation, the Associate Minister of Transport.
8. The quickest way of amending the Road User Rule and the Traffic Control Devices Rule to implement these legislative changes as soon as possible after the Act comes into force is to do this by Order in Council. The two amendment rules are therefore presented, along with the Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017, as a package for the Executive Council.\(^5\)

9. Once made by the Governor-General, the two rules will need to be notified in the *New Zealand Gazette* (the *Gazette*) and laid before the House of Representatives.

10. The legal section of this briefing contains further information about the making of these two rules, including the advice on the matters that you must consider when recommending that the Governor-General make ordinary land transport rules by Order in Council.

**RUC Exemption Order**

11. The Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017 is a new Legislative Instrument. In recommending that this Order be made, you must be satisfied that the purpose of the exemption is to encourage and support the uptake of heavy electric RUC vehicles. Our advice is that a period of exception from road user charges, which can be as high as $30 per 100 kilometres, would be a means of partially offsetting the capital cost of these vehicles, compared with diesel equivalents.

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\(^5\) To facilitate this, PCO agreed to also draft Land Transport Rule: Traffic Control Devices Amendment 2017.
Recommendations

12. The recommendations are that you:

(a) **recommend** that Her Excellency the Governor-General make the Land Transport (Road User) Amendment Rule 2107

(b) **recommend** that Her Excellency the Governor-General make Land Transport Rule: Traffic Control Devices Amendment 2017

(c) **sign** and lodge the attached paper to the Cabinet Legislation Committee and the advice sheets no later than 10.00am on 20 July 2017

(d) **authorise** the notification of the signed rules in the *New Zealand Gazette*

(e) **authorise** the laying of the signed rules before the House of Representatives

**Withheld under section 9(2)(a) of the Official Information Act 1982**

Glen-Marie Burns
Manager, People and Environment

**MINISTER'S SIGNATURE:**

**DATE:** 17.06.17
Pages 6-10 withheld under section 9(2)(h) of the Official Information Act 1982
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Appendix – Minister of Transport’s Press Release, 5 May 2016

Simon Bridges

5 MAY, 2016

Govt driving the switch to electric vehicles

Transport Minister Simon Bridges today announced an ambitious and wide ranging package of measures to increase the uptake of electric vehicles in New Zealand.

"It’s clear that electric vehicles are the future. A move from petrol and diesel to low emission transport is a natural evolution, and it is our aim to encourage that switch sooner, rather than later," Mr Bridges says.

"The benefits of increasing uptake of electric vehicles are far-reaching. They’re cheaper to run than petrol or diesel vehicles, they’re powered by our abundant renewable electricity supply, and they’ll reduce the amount of emissions that come from the country’s vehicle fleet."

The package announced today will tackle and remove barriers that have until now prevented households and business from choosing electric. Current barriers include the limited selection of models available; a lack of widespread public charging infrastructure; and lack of awareness about electric vehicles.

"The Government can’t tackle these barriers alone. That’s why we’ve been working closely with the private sector and local government over the last year on what measures we can take that will have the greatest impact.

"What we’ve come up with together is a strong package of measures that is ambitious and has real substance," Mr Bridges says.

The Government’s package includes:

- A target of doubling the number of electric vehicles in New Zealand every year to reach approximately 64,000 by 2021
- Extending the Road User Charges exemption on light electric vehicles until they make up two percent of the light vehicle fleet
- A new Road User Charges exemption for heavy electric vehicles until they make up two percent of the heavy vehicle fleet
- Work across Government and private sector to investigate the bulk purchase of electric vehicles
- Government agencies coordinating activities to support the development and roll-out of public charging infrastructure including providing information and guidance
- $1 million annually for a nation-wide electric vehicle information and promotion campaign over five years
- A contestable fund of up to $6 million per year to encourage and support innovative low emission vehicle projects
• Allowing electric vehicles in bus lanes and high-occupancy vehicle lanes on the State Highway network and local roads

• Review of tax depreciation rates and the method for calculating fringe benefit tax to ensure electric vehicles are not being unfairly disadvantaged

• Establishing an electric vehicles leadership group across business, local and central government.

The package also seeks to realise the many benefits that electric vehicles offer up.

"This includes annual savings of Road User Charges of $600 a year for the average vehicle owner and much cheaper operating costs. On average, charging an electric vehicle at home is equivalent to buying petrol at 30 cents a litre, compared to petrol which is around $2 a litre."

Mr Bridges says the package is an important part of the Government’s work to reduce greenhouse gas emissions in the transport sector.

"Electric vehicles will maximise New Zealand’s renewable advantage, with more than 80% of the country’s electricity coming from hydro, geothermal and wind. The increased use of electric vehicles will replace petrol and diesel with clean, green, locally produced energy.

"If we start to replace New Zealand’s fleet with electric vehicles, we can begin to significantly reduce our greenhouse gas emissions."

Further information on the Government’s Electric Vehicles Programme is available here: www.transport.govt.nz/ev.
Chair
Cabinet Legislation Committee

ELECTRIC VEHICLES - SUBORDINATE LEGISLATION

Proposal

1. This paper asks the Cabinet Legislation Committee to approve the submission to the Executive Council of the following (the Orders):

1.1. Land Transport (Road User) Amendment Rule 2017
1.2. Land Transport Rule: Traffic Control Devices Amendment 2017
1.3. Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017.

Executive summary

2. This paper seeks approval to submit two land transport amendment rules and a road user charges exemption order to the Executive Council. These instruments are consequential on the passage of the Energy Innovation (Electric Vehicles and Other Matters) Amendment Act 2017 and contain subordinate detail necessary to implement government policy to encourage the uptake of electric vehicles. This is by amending land transport rules to make it lawful for electric vehicles to be driven in special vehicle lanes (subject to the road controlling authority making a bylaw permitting this) and by making an Order under the Road User Charges Act 2012 exempting heavy electric RUC vehicles from the payment of road user charges until the end of 2025.

Policy

3. On 21 March 2016, Cabinet agreed to a package of measures to encourage the uptake of electric vehicles [CAB-16-MIN-0108.01 refers]. These measures, forming the Government’s Electric Vehicles Programme, included two aspects requiring change to transport legislation:

3.1. to clarify that the Land Transport Act 1998 empowers road controlling authorities to make bylaws allowing electric vehicles (EVs) to use special vehicle lanes and make amendments to the Land Transport (Road User) Rule 2004, and related provisions in Land Transport Rule: Traffic Control Devices 2004, to enable road controlling authorities to allow EVs access to special vehicle lanes

3.2. to create a new road user charges exemption for heavy EVs extending, subject to review in 2019, to 31 December 2025.
4. The necessary changes to primary legislation have been effected through the Energy Innovation (Electric Vehicles and Other Matters) Amendment Act 2017, which:

4.1. amends the Land Transport Act 1998 to clarify that road controlling authorities can make bylaws that permit drivers of EVs to drive in special vehicle lanes

4.2. amends the Road User Charges Act 2012 to empower the Governor-General, to make Orders in Council that specify the period during which road user charges are not payable in respect of heavy electric RUC vehicles.

5. The Orders support these changes to primary legislation and complete the legislative changes:

5.1. the Land Transport (Road User) Amendment Rule 2017 amends the Land Transport (Road User) Rule 2004 to make it lawful for drivers of EVs to drive in bus lanes and high occupancy vehicle lanes (when permitted by a road controlling authority bylaw)

5.2. Land Transport Rule: Traffic Control Devices Amendment 2017 amends Land Transport Rule: Traffic Control Devices 2004 to prescribe road signs and road markings applicable to the use of EVs

5.3. The Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017 specifies the period, from 1 September 2017 to 31 December 2025, during which road user charges are not payable in respect of heavy electric RUC vehicles.

**Timing and the 28-day rule**

6. The Orders will come into force on 1 September 2017, which is at least 28 days after their notification in the *New Zealand Gazette*.

**Compliance**

7. The Orders comply with each of the following:

7.1. the principles of the Treaty of Waitangi;

7.2. the rights and freedoms contained in the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993;

7.3. the principles and guidelines set out in the Privacy Act 1993;

7.4. the relevant international standards and obligations;

7.5. the *LAC Guidelines on the Process and Content of Legislation* (2014 edition), which are maintained by the Legislation Design and Advisory Committee.
8. Having considered, as required by section 152A(2) of the Land Transport Act 1998, the matters in section 164(2) of that Act, I recommend that Her Excellency the Governor-General make the Land Transport (Road User) Amendment Rule 2017 and Land Transport Rule: Traffic Control Devices Amendment 2017.

9. In recommending that Her Excellency the Governor-General make the Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017, I have considered the requirements of section 37A of the Road User Charges Act 2012 and I am satisfied that the purpose of the exemption is to encourage and support the uptake of heavy electric RUC vehicles.

Regulations Review Committee

10. There are no grounds for the Regulations Review Committee to draw the Orders to the attention of the House of Representatives under Standing Order 319.

Certification by Parliamentary Counsel

11. The Parliamentary Counsel Office have certified drafts of the Orders as being in order for submission to Cabinet.

Regulatory Impact Analysis

12. A Regulatory Impact Statement, “Road user charges exemptions and discounts for electric vehicles”, was prepared in accordance with the necessary requirements, and was submitted in March 2016 when Cabinet approval was sought for the policy relating to the regulations. [EGI-16-SUB-0034 refers].

13. A Regulatory Impact Statement has not been prepared in respect of these Orders, which come within the exemption for technical “revisions” or consolidations that substantially re-enact the current law in order to improve legislative clarity or navigability (including the fixing of errors, the clarification of the existing legislative intent, and the reconciliation of inconsistencies).

Publicity

14. The Land Transport (Road User) Amendment Rule 2017 and the Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017 will be notified as Legislative Instruments in the New Zealand Gazette (the Gazette).

15. The New Zealand Transport Agency (the Transport Agency) will notify Land Transport Rule: Traffic Control Devices Amendment 2017 in the Gazette as required by section 161(3) of the Act.

16. The Transport Agency will give both general notice, and a specific notice to owners of heavy EVs, of the RUC exemption. The Transport Agency is already liaising with Road Controlling Authorities on allowing EVs to use special vehicle lanes.
Consultation

17. Submissions were received on the proposal to allow road controlling authorities to make bylaws prescribing that electric vehicles can use special vehicle lanes during the Select Committee stage of the Energy Innovation (Electric Vehicles and Other Matters) Bill. In addition, the Ministry of Transport sought informal feedback on the proposed rule changes from the general public and notified key stakeholders of this process.

18. The Ministry of Business, Innovation, and Employment, the Department of Internal Affairs, the Ministry of Justice, the Parliamentary Counsel Office, the New Zealand Police, The Treasury, and the New Zealand Transport Agency were consulted on this paper. The Department of Prime Minister and Cabinet was informed.

19. The Minister of Transport has been consulted on this paper and agrees to it being lodged.
Recommendations

20. The Associate Minister of Transport recommends that the Committee:

1. **note** that on 21 March 2016 Cabinet agreed [CAB-16-MIN-0108.01 refers] to:
   
   1.1 make amendments to the Land Transport (Road User) Rule 2004, and related provisions in Land Transport Rule: Traffic Control Devices 2004, to enable road controlling authorities to allow electric vehicles access to bus and high occupancy vehicle lanes;
   
   1.2 create a new road user charges exemption for heavy electric vehicles, to end (subject to review in 2019) on 31 December 2025;

2. **note** that the Land Transport (Road User) Amendment Rule 2017 and Land Transport Rule: Traffic Control Devices Amendment 2017 will give effect to the decision referred to in paragraph 1.1 above;

3. **note** that the Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017 will give effect to the decision referred to in paragraph 1.2 above;

4. **authorise** the submission to the Executive Council of the Land Transport (Road User) Amendment Rule 2017, Land Transport Rule: Traffic Control Devices Amendment 2017 and the Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017;

5. **note** that the Land Transport (Road User) Amendment Rule 2017, Land Transport Rule: Traffic Control Devices Amendment 2017 and the Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017 will come into force on 1 September 2017.

Hon Tim Macindoe

*Associate Minister of Transport*

Dated: ________________________
Cabinet Committee: Legislation (LEG)

Paper Title: Electric Vehicles - Subordinate Legislation to support Energy Innovation Bill

Portfolio: Transport

Officials Attending:

- David Bowden, Chief Legal Adviser, Transport
- [Redacted], Principal Adviser, Transport
  Withheld under section 9(2)(a) of the Official Information Act 1982

Background Information:

- On 21 March 2016, Cabinet agreed to a package of measures to encourage the uptake of electric vehicles (EVs) [CAB-16-MIN-0168.01 refers]. These included exempting electric vehicles from Road User Charges and allowing them to use special vehicle lanes.
- These instruments implement those policy decisions at subordinate legislation level. They are consequential on the passage of the Energy Innovation (Electric Vehicles and Other Matters) Amendment Act 2017, which made the necessary changes to the primary legislation, and amend the:
  - Land Transport Act 1998 to make it clear that bylaws can be made allowing EV’s in special vehicle lanes
  - Road User Charges Act 2012 to Orders in Council being made to exempt heavy electric vehicles from payment of RUC (that Act already contains a power to exempt light EV’s).
- The Ministry of Business, Innovation and Employment, the Ministry of Justice, the New Zealand Police, the Parliamentary Counsel Office and The Treasury were consulted on this paper. DPMC were informed.

Talking Points:

- This paper seeks approval to submit two land transport amendment rules and a road user charges exemption order to the Executive Council.
- The two land transport rules will be made under the Order in Council procedure in the Land Transport Act, as opposed to being made at ministerial level. This is to expedite the process and the statutory consultation requirement, given consultation occurred at select committee.
The Land Transport (Road User) Amendment Rule 2017 amends the Land Transport (Road User) Rule 2004 to make it lawful for electric vehicles to be driven in bus lanes and high occupancy vehicle lanes (subject to the road controlling authority making a bylaw permitting this).

Land Transport Rule: Traffic Control Devices Amendment 2017 amends Land Transport Rule: Traffic Control Devices 2004 to prescribe road signs and markings relating to the use of electric vehicles.

The Road User Charges (Exemption Period for Heavy Electric RUC Vehicles) Order 2017, made under the Road User Charges Act 2012, exempts heavy electric RUC vehicles from the payment of road user charges until the end of 2025.

The instruments will come into force on 1 September 2017.
Joining the international EV Government Fleet Declaration

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<tr>
<th>Reason for this briefing</th>
<th>To report to you with further information on joining the international electric vehicle Government Fleet Declaration.</th>
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<tr>
<td>Action required</td>
<td>Agree to New Zealand joining the Government Fleet Declaration, and refer this briefing to the Minister for Climate Change Issues for concurrence.</td>
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<tr>
<td>Deadline</td>
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Contact for telephone discussion (if required)

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<th>Name</th>
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<td>Adviser</td>
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<td>Acting Manager, People and Environment</td>
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MINISTER’S COMMENTS: Withheld under section 9(2)(a) of the Official Information Act 1982

Date: 14 June 2017

Attention: Hon Simon Bridges

Briefing number: OC05065

Security level: In confidence

Minister of Transport’s office actions

☐ Noted       ☐ Seen                         ☐ Approved

☐ Needs change ☐ Referred to

☐ Withdrawn   ☐ Not seen by Minister     ☐ Overtaken by events
Purpose of report

1. To provide you with advice on joining the Government Fleet Declaration (the Declaration) developed by the Electric Vehicles Initiative (the EVI), which is a sub-forum of the Clean Energy Ministerial (the CEM).

2. We recommend that you agree to New Zealand joining the Declaration, and refer this briefing to the Minister for Climate Change Issues for her concurrence.

Background

3. During the COP22 climate change talks in Morocco, in November 2016, eight countries – Canada, China, France, Japan, Norway, Sweden, the UK and the US – signed the Declaration, pledging to increase the number of electric vehicles (EVs) in their government fleets. The voluntary commitment taken by these countries aims to encourage other governments and non-state actors to transition to low-carbon transport.

4. The Declaration is an output of the EVI, a sub-forum of the CEM.

The Clean Energy Ministerial

5. The CEM is a high-level global forum to promote policies and programs that advance clean energy technology, to share lessons learned and best practices, and to encourage the transition to a global clean energy economy.

The Electric Vehicles Initiative

6. The EVI is one of the multi-government policy forums operating under the CEM. EVI participants conduct cooperative activities that support the design and implementation of domestic EV uptake policies and programmes.

7. The International Energy Agency (IEA) serves as the ‘coordinator’ for the EVI. It carries out many of the EVI tasks and activities, and organises joint statements from EVI participants.

8. Current EVI participants are Canada, China, Finland, France, Germany, India, Japan, Korea, Netherlands, Norway, Sweden, United Arab Emirates, the UK, and the US.

9. We are exploring the merits of New Zealand becoming an EVI participant and CEM member. Our current view is that the resource and funding implications of CEM membership do not warrant joining, but that becoming an EVI participant may be a valuable opportunity.

10. A country can be an EVI participant without being a full CEM member, upon approval by the EVI Advisory Board (the Netherlands falls within this category).

11. We continue to analyse the benefits and costs of EVI participation. The costs include an annual financial contribution and a designated Ministry representative to attend overseas Advisory Board meetings twice a year.

12. To aid this analysis, we organised for two Ministry of Foreign Affairs and Trade (MFAT) officials from the New Zealand Embassy in Beijing to attend a side-event associated with the EVI, at the CEM’s annual forum on 6 June 2017. The objective was to meet EVI participant representatives and IEA officials, network with other international stakeholders, and gather useful information to implement the current EV Programme.

13. Drawing upon MFAT’s experience and further research, we will report to you later in 2017 recommending on New Zealand’s involvement in the EVI.
Joining the Government Fleet Declaration

14. While the current parties to the Declaration are all EVI participants, any country is welcome to become an additional signatory. Therefore, New Zealand could join the Declaration independently of any decision to participate in the EVI.

15. New Zealand did not sign up during COP22 because we were unaware of the Declaration. At that time we knew little about the EVI. The Declaration is attached.

Commitments under the Declaration

16. Under the Declaration, government signatories:

16.1. note, with varying capabilities and circumstances, their commitment to cut down on carbon and air pollutant emissions by accelerating the introduction of low-emission vehicles, including electric vehicles, in their own fleets

16.2. encourage non-state actors (such as cities, subnational government and companies) to echo their commitment and spearhead a short-term shift towards clean fleets (bus, taxis, municipal and corporate fleets)

16.3. call on the sustained efforts of various organisations to mobilise and highlight the voluntary commitments of non-state actors towards clean fleets.

17. It is a voluntary initiative, and joining would impose no legal obligations on New Zealand.

Benefits of joining the Declaration

18. Joining the Declaration would:

18.1. reaffirm New Zealand’s commitment to the Paris Agreement, including our Nationally Determined Contribution

18.2. support the global transition to low-emission vehicles, to cut down on carbon and air pollutant emissions. In particular, it recognises the important role non-state actors play

18.3. improve international awareness of New Zealand’s EV Programme, which will support:

18.3.1. New Zealand’s international profile

18.3.2. other countries’ policy development. For instance, initiatives within our EV Programme could be adopted by others.

18.4. begin New Zealand’s involvement with the EVI, which could support our official participation in the future.
Risks of joining the Declaration

19. Joining the Declaration may raise expectations about New Zealand’s capability to transition toward an electric fleet and the EV Programme’s impact on EV uptake.

20. In many cases, this will be positive – other countries will become aware of New Zealand’s goals and policy to support EV uptake. In other cases, it may raise expectations above what is possible or intended.

21. For example, the Declaration welcomes commitments released through the Paris Declaration on Electro-Mobility and Climate Change, which notes that at least 20 percent of all road transport vehicles globally should be electric by 2030 if warming is to be limited to 2 degrees or less. However, New Zealand may not achieve electrification of 20 percent of its vehicle fleet by 2030, given the average age and continued growth of our vehicle fleet.

22. In contrast to other countries party to the Declaration, New Zealand’s EV Programme is designed to accelerate uptake without large financial subsidies. It also aims for 64,000 EVs by the end of 2021, which is a small figure relative to other countries’ EV markets. Critics could perceive this as a modest policy package to encourage EV uptake.

23. However, the Declaration specifically notes that different countries have varying capabilities to achieve fleet electrification, and it is a separate document to the Paris Declaration on Electro-Mobility and Climate Change. We are also ready to answer any questions on the EV Programme and its ability to encourage EV uptake. Our view is that it is a policy package that suits involvement in the Declaration.

What would New Zealand’s statement look like in the Declaration?

24. A proposed draft of New Zealand’s statement is set out on page 7 of this briefing. The language used is consistent with other countries’ statements and is not legally binding.

25. Countries’ commitments in the Declaration are statements of existing commitments to EV uptake, under domestic law or policy, rather than new commitments made for the purposes of the Declaration. The statements range from very specific examples of incentives to improve EV numbers in government fleets, to general objectives around mitigating climate change by pursuing EV uptake across government and the private sector.

Next steps

Procedure to join the Declaration

26. New Zealand has signed up to a number of non-binding, voluntary initiatives in the margins of the United Nations Framework Convention on Climate Change meetings at COP21 and COP22 following joint agreement between the Minister for Climate Change Issues and the relevant portfolio Minister.

27. Therefore, if you agree to joining the Declaration, we advise that you refer this briefing to the Minister for Climate Changes Issues for her concurrence.

28. You do not need Cabinet agreement because no new policy development is involved.

29. If the Minister for Climate Change Issues concurs, we will work with both your and her office, in conjunction with MFAT and Ministry for the Environment (MfE) to finalise New Zealand’s statement.

30. Ultimately, the Ministry would advise the IEA (as EVI coordinator) that New Zealand has decided to join the Declaration, and provide New Zealand’s statement.
Announcing New Zealand's decision to join the Declaration

31. You and/or the Minister for Climate Change Issues may wish to make an announcement about New Zealand joining the Declaration.

32. The announcement could be made during COP23, which runs from 6-17 November 2017. The IEA advise that this may be an effective time to announce New Zealand's decision to join because it will coincide with other EVI events and announcements, and other countries may want to join the Declaration by November, so a joint statement could be made.

33. However, you could also:

33.1. domestically announce our intention to join before COP23, but make the official announcement to join at COP23

33.2. announce our decision to join before COP23.

34. In any case, New Zealand's national statement at COP23 will include all climate relevant activity for the preceding 12 months, including our involvement in the Declaration.

35. The IEA would certainly make an announcement about our decision to join at COP23. If you took option 33.2 above, it may also make a statement before COP23 in line with your announcement.

36. We would ensure that any IEA announcement is consistent and coordinated with announcements you wish to make.

37. We will work with your office and the Minister for Climate Change Issues' office to organise appropriate timing of an announcement, should you agree to join the Declaration.

Consultation

38. We consulted MFAT, MfE and the New Zealand Government Procurement Unit of the Ministry of Business, Innovation and Employment in developing this briefing.

39. All three agencies support New Zealand joining the Declaration, and helped draft the proposed statement.
Recommendations

40. The recommendations are that you:

(a) note that the Ministry is considering whether official participation in the Electric Vehicles Initiative (EVI) would be a valuable endeavour for New Zealand, and will report to you later in 2017 with a recommendation

(b) agree to New Zealand joining the EVI's Government Fleet Declaration (the Declaration)

(c) refer, if you agree to joining the Declaration, this briefing to the Minister for Climate Change Issues for her concurrence

(d) consider the draft statement to be included in the Declaration, which articulates New Zealand's commitment to government fleet electrification and to electric vehicle uptake generally

(e) note that we will confirm the final statement for inclusion in the Declaration with your office and the Minister for Climate Change Issues' office before providing it to the EVI coordinator

(f) note that we will work with your office and the Minister for Climate Change Issues' office to organise appropriate timing of an announcement to join the Declaration.

Withheld under section 9(2)(a) of the Official Information Act 1982

Adviser

Acting Manager, People and Environment

MINISTER'S SIGNATURE:

DATE:
Draft text for New Zealand’s statement in the Government Fleet Declaration

1. The following is draft text for New Zealand’s statement in the Government Fleet Declaration:

The New Zealand Government has ratified the Paris Agreement, committing to lowering our greenhouse gas emissions by 30 percent below 2005 levels by 2030. To help achieve New Zealand’s climate change targets and global goals under the Agreement, the Government has established the Electric Vehicles Programme.

The Electric Vehicles Programme aims to encourage and accelerate the uptake of electric vehicles in New Zealand, reducing emissions from land transport in the process. New Zealand is well placed to reap the benefits of electric vehicles due to our abundant renewable electricity supply (over 80 percent of electricity is drawn from renewable sources). The Programme includes a target of doubling the number of electric vehicles on our roads each year, to reach approximately 64,000 by the end of 2021 – an ambitious but achievable target.

The Programme involves the government taking a coordinated and collaborative approach with the public and private sectors to deliver initiatives that encourage the uptake of electric vehicles. This included establishing a contestable fund, which will provide up to $6 million per year to co-fund projects with private and public sector partners to accelerate electric vehicle uptake. The focus is on areas where commercial returns are not yet strong enough to justify full private investment.

The government is working with suppliers and large fleet owners to improve the availability of models and reduce purchase prices. This work includes an innovative approach to procuring electric vehicles through combining public and private sector demand to achieve improved pricing and choice of vehicles in New Zealand. The inaugural combined procurement process is underway and the results will be used to improve future procurements.
Government Fleet Declaration

Marrakech (Morocco), 16 November 2016

Acknowledging that the Paris Agreement has laid down the foundation for collective efforts to limit the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, and that the world’s attention is now on the concrete policies and measures that will allow to meet this goal;

Stressing that the greenhouse-gases emissions from the transport sector are anticipated to rise from today’s levels by nearly 20 percent by 2030 and close to 50 percent by 2050 unless major action is undertaken;

Recognizing that changing this transport emissions trajectory involves, among other measures and in conjunction with broader sustainable transport principles, a global shift towards low-emission vehicles;

Welcoming the commitments released through the Paris Declaration on Electro-Mobility and Climate Change and Call to Action at COP21 during the Lima-Paris Action Agenda (LPAA) Transport Focus, which specifies that at least 20 percent of all road transport vehicles globally should be electrically driven by 2030 – if warming is to be limited to 2°C or less;

Acknowledging that the introduction of low-emission vehicles in captive fleets can reduce both fleets’ greenhouse-gases emissions and costs, while raising employee awareness for green technologies;

As members of the Clean Energy Ministerial’s Electric Vehicles Initiative (CEM-EVI), cooperating to facilitate the global deployment of 20 million electric vehicles, including plug-in hybrid electric vehicles and fuel cell vehicles, by 2020:

We, the undersigned governments, with varying capabilities and circumstances, are committed to cut down on carbon and air pollutants emissions by accelerating the introduction of low-emission vehicles, including electric vehicles, in our own fleets.

We encourage non-state actors, such as cities, subnational governments and companies, to echo our commitment and spearhead a short-term shift towards clean fleets (bus, taxis, municipal and corporate fleets).

We call on the sustained efforts of cooperative initiatives, sectorial federations and other organizations to mobilize and highlight the voluntary commitments of non-state actors towards clean fleets.
Signatory governments

This Declaration is an open document; additional signatory governments are welcomed, whether or not they are CEM EVI members.

Contact: Pierpaolo Cazzola (EVI Coordinator)
transportinfo@iea.org

CEM EVI members

Canada

In December 2015, as part of COP21, Canada joined 195 other countries in committing to do our part to lower our GHG emissions, and address climate change. The Government of Canada is proud to re-affirm these commitments, and again join the international community which has, today, committed to lead by example and accelerate the deployment of lower emitting vehicles in government operations.

Canada is a leader in the fight against climate change. Both overseas and at home, we are taking action to reduce carbon pollution, spark innovation, and create jobs during what many are calling the clean energy century. But leadership starts with government itself. That is why we are committed to reducing emissions from government operations by 40 percent by 2030 (based on 2005 levels), and will strive to achieve this goal even earlier, by 2025. The federal government will use cleaner energy and become more energy efficient across many areas—from buildings, to transportation, to buying more sustainable products. A portion of these reductions will be achieved through strategic investments in the use of electric vehicles in our fleets, as well as building the requisite recharging infrastructure. We will also work with our Provincial and Territorial partners to encourage all levels of government to deploy lower emitting vehicles in their operations, through the establishment of best-practices and sharing of the experiences learned from early adopters.

China


From 2014 to 2016, new energy vehicles\(^1\) accounted for a minimum of 30% of annual new vehicles purchased by government departments, government organs and public institutions at the level of central government. The minimum percentage of new energy vehicles in annual purchases by the categories of institutions listed above will gradually increase in subsequent years.

\(^1\) New energy vehicles include Battery Electric Vehicles (BEVs), Plug-in Hybrid Electric Vehicles (PHEVs), Fuel cell Electric Vehicles (FCEVs), vehicles using hydrogen and dimethyl ether as a fuel, and other vehicles with highly efficient energy storage devices. BEVs and PHEVs have been those with the most significant market uptake.
The Implementation Plan further mandates minimum procurement shares by municipal and regional government organs and public institutions. In 2014, at least 10% of new vehicle purchases by regional and local organs and institutions were required to be new energy vehicles. The 2014 minimum procurement share is 15% in municipal and regional government organs and public institutions located in key developed regions and regions where particulate matter (PM) concentrations are particularly high. The minimum percentage increased for municipal and regional organs to 20% in 2015 and to 30% in 2016 and will subsequently gradually increase annually thereafter.

**France**

Since the adoption of the *Energy Transition for the Green Growth Act* in 2015 [link], the French State and its public bodies are committed to introduce a minimum share of 50% of vehicles with low emissions of CO₂ and air pollutants\(^2\), including primarily BEVs and PHEVs, when renewing their fleets.

Local authorities are subject to the same requirement with a minimum threshold set at 20% of the vehicles they will purchase to renew their fleets.

This is expected to result in 5,000 low emission vehicles per year for the central government and its public bodies and 4,000 low emission vehicles per year for local authorities from 1st January 2017.

All new buses and coaches that shall be acquired for public transport services from 2025 onwards must also be low-emission vehicles.

**Japan**

The Japanese *Plan for Global Warming Countermeasures Related to Government Affairs* [link] illustrates that the Japanese government is making every effort to ensure that, by 2030, all government vehicles will be next-generation vehicles\(^3\), except in cases where no alternative next-generation vehicles exist\(^4\).

As an intermediate goal, the Japanese government is making every effort aiming to ensure that, by 2020, approximately 40% of the governmental vehicle fleet (close to 9 thousand vehicles out of 22.6 thousand in the governmental fleet) will be composed by next-generation vehicles. This means that most of the governmental vehicles scheduled for renewal will need to be next-generation vehicles from now to 2020.

Governmental action on the renewal of its vehicle fleet is expected to contribute significantly to the aim of the Japanese *Road Map for the Dissemination of Electric and Plug-in Hybrid Vehicles* to increase to one million the total stock of electric and plug-in hybrid vehicles.

**Norway**

Norway has ratified the Paris Agreement on climate change [link] and committed to 40 percent reduction of greenhouse gas emissions by 2030 compared with the 1990 level. As part of this agreement, Norway will continue their efforts for greenhouse gas reduction in the

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\(^2\) These vehicles have not yet been defined in detail. They are likely to include vehicles emitting less than 60 g of CO₂/km on a tank-to-wheel basis. As a result, they shall include primarily BEVs and PHEVs.

\(^3\) Including hybrid, electric, plug-in hybrid, fuel cell, clean diesel and compressed natural gas vehicles.

\(^4\) This is the case for specialized vehicles such as emergency response vehicles and snow plow trucks.
road transport sector. This will be central in our new National Transport plan for 2018-2029 that will be ready in the spring of 2017.

In May 2016, Norway became the fourth country in the world to reach 100,000 electric vehicles sold after the United States, China and Japan (link); and had 112,203 electric vehicles on the road in July 2016, of which a vast majority are all-electric (link). Norway has the highest number of electric vehicles per capita in the world (link). In 2015, market share of electric cars of the annual sales reached 22% (17% all-electric vehicles and 5% plug-in hybrid electric vehicles) (link). The proportion of electric vehicles has now reached approximately 4% of the total passenger car fleet.

The high proportion of electric vehicles has been spurred by a number of economic and other incentives: for electric vehicles there is no purchase tax, no VAT, reduced annual fee and reduced benefit tax for electric cars used as company cars. In addition, electric vehicles have free passage on toll roads, access to public transport lanes and free passage on ferries connecting national roads.

Sweden

The Swedish government has announced that Sweden will be one of the world’s first fossil-free welfare nations, and that in the long term our energy system will be based on 100 percent renewable energy.

The transport sector is a particular challenge in the work that lies ahead of us, working towards this ambition. Electric vehicles are expected to play a key role and government fleets can act as precursors. Apart from general incentives, promoting environmental-friendly and electric vehicles, the Swedish government has launched particular incentives directed towards governmental fleets (link). One example is that governmental agencies are forced to consider the environmental aspect in the procurement of vehicles, by purchasing electric vehicles or by using biofuels. Another example is a recently launched subsidy for electric buses used in public transport. Public transport agencies will receive up to 700 000 SEK for each electric bus and up to 350 000 SEK for each plug in hybrid bus (link).

United Kingdom

The Government of the United Kingdom (UK) has a commitment (link) that nearly all cars and vans in the UK will be zero emission by 2050, and has committed over £ 600 million in the period 2015-2020 to support this. Government and wider public sector fleets must show leadership in supporting the inevitable switch to ultra-low emission vehicles (ULEVs). A number of programmes, led by the Office for Low Emission Vehicles (link), are aimed at supporting the UK public sector in the uptake of ULEVs.

The UK Government has reviewed the largest UK public sector fleets to assess the opportunity for vehicles in these fleets to be switched to ULEVs. As a first positive step in this transition, a £ 5 million public sector ULEV readiness programme (link) is bringing 300 vehicles into the public sector fleet and supporting the installation of appropriate recharging infrastructure.

The UK Government worked with 12 local authorities on specific measures to increase the uptake of ULEVs and has supported action in 8 key areas under the UK’s £ 40 million Go Ultra Low City scheme (link). Three exemplar cities – Bristol, Nottingham and Milton Keynes – have committed to increase the number of ULEVs in their fleets by around 200 vehicles.
Infrastructure is a key enabler for local authorities and Government has already helped them install nearly 1000 charge points. This number will be increased significantly through the UK’s £7.5 million workplace charging scheme (link), announced in October 2016.

Around 30 fuel cell electric vehicles are being trialled by public sector bodies under the £11 million HyTAP (Hydrogen for Transport Advancement Programme) initiative (link).

The UK Government is undertaking a review of its Buying Standards for vehicles, and plans to amend these standards to encourage future Government and public sector vehicle purchases to be ultra low emission.

United States of America

The Obama Administration continues to lead by example to combat climate change and reduce the nation’s carbon footprint. In 2015, the Federal government set aggressive targets to reduce its own greenhouse gas emissions 30% by 2025 and acquire 20% of all new passenger vehicles as zero emission (ZEV) or plug-in hybrid by 2020 and 50% by 2025 (link).

The U.S. Federal government has entered into a new partnership with state and local governments (Supporting state and local partnerships to increase the electric vehicles on the road - link) to make public commitments to fleet electrification. By working together, federal, state and local leadership can aggregate demand to lower purchase costs, promote electric vehicle innovation and adoption and expand our national electric vehicle infrastructure.

Twenty-four state and local governments have joined the Federal government to electrify our fleets. These new commitments account for over 2,500 new electric vehicles in 2017 alone and help pave a path for a sustained level of purchases into the future.

This builds upon prior commitment and action by forward leaning states and cities that have and continue to pursue fleet electrification.