



## Office of Hon Simon Bridges

MP for Tauranga

Minister of Energy and Resources

Minister of Transport

Deputy Leader of the House

Associate Minister for Climate Change  
Issues

Associate Minister of Justice

03 JUN 2016

Hamish

**[fyi-request-3976-656e17c5@requests.fyi.org.nz](mailto:fyi-request-3976-656e17c5@requests.fyi.org.nz)**

Dear Hamish

I refer to your request dated 6 May 2016, pursuant to the Official Information Act 1982 (the Act), seeking:

*"In the 5th May press release titled "Govt driving the Information requested: switch to electric vehicles" (<https://www.beehive.govt.nz/release/govt-driving-switch-electric-vehicles>) the government proposes to allow Electric Vehicles to use bus lanes and high-occupancy vehicle lanes on the State Highway network and local roads.*

*"Could I please have the advice and analysis supplied to the Minister on the expected impact to Bus Journey times and other Public Transport service levels in metropolitan areas due to this policy."*

I consider that information within a briefing and a report falls within the scope of your request. The relevant information is attached to this letter.

Yours sincerely

Hon Simon Bridges  
**Minister of Transport**

## Executive summary (pp 2-4)

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:

10.2 enabling electric vehicles to use bus and transit lanes

## Measures that could be investigated further (pp 9-13)

### 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 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 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. 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 markings and signage.
64. We do not expect that identification of electric vehicles, or enforcement around lane use, would pose significant challenges or costs. We would discuss these issues further with the NZ Transport Agency and NZ Police should you choose to progress this measure.

#### *Links to other measures*

65. This measure has no direct links to other measures included in this briefing.

**Recommendations (pp 17-18)**

111. The recommendations are that you:

1. **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:
2. enabling electric vehicles to use bus and transit lanes

Yes/No

**Appendix A – Summary of key information on each measure**

Measure	Target audience	Summary of advice	Implementation considerations	Costs
<b>Measures that could be investigated further</b>				
<b>Electric vehicles in priority lanes</b>	Fleet buyers and motoring public	Consideration could be given to removing the regulatory barrier preventing road controlling 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 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: <ul style="list-style-type: none"> <li>• infrastructure (road marking and signage)</li> <li>• communications</li> <li>• planning and monitoring costs.</li> </ul> There is also the risk of costs from any loss of network efficiency.

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**Measure 5: Electric vehicles in bus and transit lanes (pp 19-21)**

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

1. 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.<sup>1</sup>
2. 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.
3. 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.
4. 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*

5. At present, transit lanes only exist in Auckland. They operate in two forms.
  - 5.1. 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.
  - 5.2. 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.
6. Bus lanes exist along main arterial roads in most of New Zealand's main urban centres.
7. 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.
8. 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

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<sup>1</sup> Sourced from a 2014 presentation by Norwegian Transportøkonomisk Institutt, on 'Electrification of road transport in Norway', slide 9.



the uptake of electric and hybrid vehicles.<sup>2</sup> 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.<sup>3</sup>

9. 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.
10. 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.<sup>4</sup>
11. 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

12. 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

13. 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.
14. 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.

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<sup>2</sup> See two USA studies: (2014) *Evaluation of State-level U.S. Electric Vehicle Incentives*, The International Council on Clean Transportation, p.26; and (2008) *Impact of High Occupancy Vehicle (HOV) Lane incentives for Hybrids in Virginia*, Journal of Public Transportation, vol. 11, no.4, p.52.

<sup>3</sup> <http://www.nzta.govt.nz/resources/research/reports/557/docs/557.pdf> , p.23.

<sup>4</sup> Ibid, p.22, 23.

15. 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.
16. 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.
17. 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.
18. 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.
19. 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.