



RECEIVED
02 DEC 2014
Office Hon. Simon Bridges

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)

Name	Position	Telephone		First Contact
		Direct Line	After Hours	
[REDACTED]	Senior Adviser	[REDACTED]		
Erin Wynne	Manager, People and Environment	[REDACTED]	[REDACTED]	✓

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

Given limited resources, prioritise the EV & hybrid work over the bio fuel 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

- | | | |
|---------------------------------------|---|--|
| <input type="checkbox"/> Noted | <input type="checkbox"/> Seen | <input type="checkbox"/> Approved |
| <input type="checkbox"/> Needs change | <input type="checkbox"/> Referred to | |
| <input type="checkbox"/> Withdrawn | <input type="checkbox"/> Not seen by Minister | <input type="checkbox"/> 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]

[REDACTED]

[REDACTED]

[REDACTED] Out of scope

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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

[REDACTED]

- [REDACTED]

[REDACTED]

- [REDACTED]

[REDACTED]

- [REDACTED]

[REDACTED]

- [REDACTED]

[REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

[REDACTED]

- [REDACTED]

RELEASED UNDER THE OFFICIAL INFORMATION ACT

Out of scope

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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. Yes/No

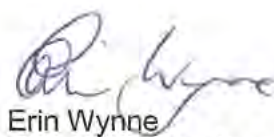
Out of scope

(b) [Redacted] Yes/No

(c) [Redacted] Yes/No

[Redacted]

Senior Adviser

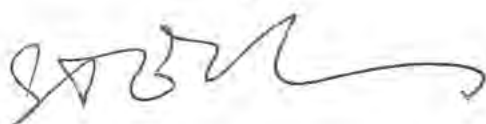


Erin Wynne
Manager, People and Environment

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

MINISTER'S SIGNATURE:

DATE:



23 January 2015

RELEASED UNDER THE OFFICIAL INFORMATION ACT

Appendix A – Work programme

Work streams	Key tasks	Indicative timing	Estimated FTE resourcing (across the Ministry only) ¹
New work streams			
Electric and hybrids vehicles	Initial briefing on the emerging uptake of electric (EV) and hybrids vehicles, including potential policy responses.	1 December 2014	1.4 FTE
	Extension of current road user charges exemption.	March 2015	
	Impact of electric buses in public transport on urban air quality in Auckland.	May 2015	
	Consideration of adjustment of the fringe benefit tax application to EVs and hybrids to recognise the benefits of these vehicles.	May 2015	
	Feebates ² – such as setting differentiated annual vehicle licensing fees to reflect the level of CO ₂ emissions emitted by a vehicle.	May 2015	
	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.	May 2015	
	Investigate the possible removal of import duties on batteries for EVs.	May 2015	

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.

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

RELEASED UNDER THE
OFFICIAL INFORMATION ACT

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]			
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

RELEASED UNDER THE
OFFICIAL INFORMATION ACT

[REDACTED]	[REDACTED]	[REDACTED]	
	[REDACTED]	[REDACTED]	
	[REDACTED]	[REDACTED]	
	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	
	[REDACTED]	[REDACTED]	
	[REDACTED]	[REDACTED]	
[REDACTED]			
[REDACTED]	[REDACTED]	[REDACTED]	
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	
[REDACTED]			[REDACTED]

RELEASED UNDER THE
OFFICIAL INFORMATION ACT

Appendix B: Background information on electric and hybrid vehicles

1. The numbers of electric and plug-in hybrid³ 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).

Out of scope

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.