Ministry of Transport
TE MANATŪ WAKA

BRIEFING

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 to follow up on matters you raised with officials on 22 February 2016.
Action required	Note the contents of this paper. Lodge the attached Cabinet paper.
Deadline	25 February 2016.
Reason for deadline	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.

Contact for telephone discussion (if required)

Name	Position	Telephone Direct line	Telephone After hours	First contact
[redacted]	Senior Adviser	[redacted]		
	Principal Adviser			
Erin Wynne	Manager, People and Environment		[redacted]	✓

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

Date:	23 February 2016	**Briefing number:**	OC03810
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☐ *Withdrawn* ☐ *Not seen by Minister* ☐ *Overtaken by events*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

	Year 1 2016	Year 2 2017	Year 3 2018	Year 4 2019	Year 5 2020
Business as usual (EVs – new and used)	325	1,759	7,337	14,154	25,646
Proposed targets	1,000	2,000	4,000	8,000	16,000
Additional EVs (above business as usual)	675	241	(3,337)	(6,154)	(9,646)

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 in to 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. Yes/No

Ministerial Consultation prior to EGI

[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: 24/2/16

Current registrations of electric vehicles in New Zealand

As at 31 October 2015:

	2015 YTD registrations	Total registrations
Pure Electric Vehicles: NZ New	46	171
Pure Electric Vehicles: Used Imports	139	247
Plug-in Hybrid Electric Vehicles	208	441
Total	**393**	**859**

Targets developed at business meeting on 12 October 2015

	Year 1 2016	Year 2 2017	Year 3 2018	Year 4 2019
Business as usual (EVs – new and used)[1]	325	1,759	7,337	14,154
Target	**1,000**	**5,000**		**25,000**
Additional EVs (above BAU)	675	3,241	0	10,846
Percentage annual market share	0.42%	2.1%	3.3%	11.9%
	Projected cumulative total EVs (if targets met)			
	1,817[2]	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

	Year 1 2016	Year 2 2017	Year 3 2018	Year 4 2019	Year 5 2020
Business as usual (EVs – new and used)	325	1,759	7,337	14,154	25,646
Target	**1,000**	**2,000**	**4,000**	**8,000**	**16,000**
Additional EVs (above BAU)	675	241	(3,337)	(6,154)	(9,646)
Percentage annual market share	0.42%	0.83%	1.7%	3.3%	6.7%
	Projected cumulative total EVs (if targets met)				
	1,859[3]	3,859	7,859	15,859	31,859

Option 2: Targets as a percentage of annual vehicle registrations

	Year 1 2016	Year 2 2017	Year 3 2018	Year 4 2019	Year 5 2020	Year 10 2025
Business as usual (EVs – new and used)	325	1,759	7,337	14,154	25,646	43,337
Target	**1,000**		**5% of registrations (approx. 12,000 vehicles)**		**10-15% of registrations (approx. 24,000 – 36,000 vehicles)**	**20% of registrations (approx. 48,000 vehicles)**
Additional EVs (above BAU)	675		4,663		(1,646) – 10,354	4,663
Percentage annual market share	0.42%	0.73%	5%	5.9%	10-15%	20%
	Projected cumulative total EVs (if targets met)					
	1,859[4]	3,618	15,618	29,772	53,772 – 65,772	-

[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

Overall NZ vehicle fleet: ~3.5 million vehicles	Light passenger vehicles (~80%)
	Light commercial (~11%)
	Trucks (~3.5%)
	Other (including motorcycles, buses)
Total annual imports (2015 estimate)[5]	New ~ 120,000
	Used ~ 140,000
Total annual light fleet (business and government) vehicle registrations[6]	95,340
Total annual proportion of light fleet (business and government) vehicles suited to replacement with EVs[7]	~ 60,940 (63.9%)

[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.