



THE TREASURY
Kaitiaki Takekōwhiri

Hon Bill English
ORIGINAL

Treasury Report: Briefing on Electric Vehicles

Date:	9 April 2009	Report No:	T2009/850
-------	--------------	------------	-----------

Action Sought

	Action Sought	Deadline
Minister of Finance (Hon Bill English)	Agree the recommendations in this report; and Consider recommending alternative options to the Minister of Transport.	15 April 2009

Contact for Telephone Discussion (if required)

Name	Position	Telephone		1st Contact
Ingrid van Elst	Senior Analyst, National Infrastructure Unit	(04) 917 4858	(04) 977 4858	✓
Len Starling	Manager, National Infrastructure Unit	(04) 917 6235	938 0927 021 663 012	

Minister of Finance's Office Actions (if required)

None.

Enclosure: No

REC-77
20 APR 2009
MIME 150

9 April 2009

DH-42-3-1

Treasury Report: Briefing on Electric Vehicles

Purpose

1. This report provides you with Treasury advice in relation to Ministry of Transport (MoT) recommendations to their Minister on a proposal to exempt Electric Vehicles from Road User Charges (RUC).
2. This issue is minor from fiscal and economic perspectives but has important implications for transport funding and climate change policies.

Introduction

3. We understand that one of the Government's policy priorities is to provide incentives to increase the use of electric vehicles. National's pre-election manifesto documents indicate the government's preferred means of achieving this is to exempt electric vehicles from paying RUC.
4. MoT has recommended exempting electric vehicles from the RUC regime for a five year period applying to approximately 500 vehicles.¹ However, we note MoT's view that the exemption is not likely to provide sufficient incentives to effect a significant increase in the uptake of electric vehicle use.
5. We consider that, although feasible, this approach does require tradeoffs with other priorities. Therefore, this report provides you with our analysis on the issue, some alternative options to exemptions from RUC, and an assessment of the pros and cons of each option.

Background

6. Our understanding is that the Government's overall environment and transport strategies are to be achieved through market based approach. Whereby, any costs of emissions will be paid for by the emitters of these emissions (e.g. through a carbon-price incorporated into fuel prices). The costs of road use are recovered through RUC, Fuel Excise Duty (FED) and Motor Vehicle Registration (MVR).
7. If the carbon price is set correctly there should be no need for other subsidies or incentives (except, potentially, in the case of a market failure). A policy to encourage the use of electric vehicles justified on the basis of environmental objectives in the absence of a market failure is therefore inconsistent with the broader environmental approach.
8. Furthermore, RUC is levied to sustain transport and not environmental objectives and electric vehicles impose the same costs on road use as regular vehicles.
9. Ideally, any policy instrument chosen to provide an incentive to increase use of electric vehicles should be linked to the introduction of broader market based environmental policy. With the introduction of an Emissions Trading Scheme (ETS), the case for

¹ This cost of these exemptions in dollar terms is estimated at \$430 per vehicle, per annum, a total cost of \$10,750 per annum.

providing other incentives is reduced because drivers of electric vehicles would already benefit from lower relative operating costs due to the increased cost of fuel.

10. The use of exemptions from RUC is therefore inconsistent with the government's broader transport and environmental strategies, such as RUC and the ETS. Furthermore, it represents a low value incentive which MoT indicate is unlikely to result in increased electric vehicle uptake.
11. Exemptions from RUC for certain vehicle types, in the absence of sound policy rationale, risks undermining the effectiveness of the regime. The RUC regime is a necessary platform from which a system of full road pricing can be established. Therefore, this initiative (which will have a marginal impact environmentally) risks undermining longer term transport objectives.
12. However, if Ministers wish to proceed with an initiative which promotes the use of electric vehicles, we recommend you consider alternatives to RUC exemptions.

Analysis

13. We have created a matrix which assesses the various options according to some crucial policy criteria. These include:
 - a. Effectiveness in encouraging an increase in the number of electric vehicles used;
 - b. Retractable: That is, can the scheme be readily disbanded with the introduction of an ETS, if the current view on the environmental impacts of electricity use and generation were to change, or if new fuel alternatives that enter the market are seen as preferable (eg. potentially hydrogen)?
 - c. Implementation: That is, can the scheme be established, maintained and disbanded at minimal cost?
 - d. Time Limited (we consider this to be important).
 - e. Is the initiative quantifiable in terms of cost?
14. What we found is that none of the options meet all the policy criteria we have established. The key variable seems to be the effectiveness of the incentive. Ministry of Transport advice is that an incentive of \$430 per annum is not going to create sufficient incentive to increase the use of electric vehicles. Therefore, short of paying people to drive electric vehicles (which we do not recommend), any option, which is equal to a road user charge exemption, is not likely to meet this criterion.

IN-CONFIDENCE

15. If the Government objective is to reduce the costs of operating electric vehicles, we have identified some potential options below.

Option	Effectiveness of incentive	Retractable	Implementation	Time Limited	Quantifiable Cost
Free RUC Sticker (NLTF Funded/Tax Payer funded ²)	No \$430 per car, per annum	Yes	Yes	Yes	Yes Total Cars x Km
Subsidy (X) (Tax payer funded ³)	Depends on size of subsidy	Yes	Yes	Yes	Yes Total Cars x (X)
½ RUC Rate (NLTF Funded)	No	Yes	No (administration expensive, need to adjust billing on entry and exit to RUC Regime)	Yes	Yes Total Cars x (RUC Rate) 2
Exempt RUC Rate (NLTF Funded)	No	No (Lose vehicles from the regime)	No (administration expensive, need to adjust billing on entry and exit to RUC Regime)	Yes	No Unable to Monitor or quantify as vehicles lost from the regime.
Registration \$433 per vehicle (incl. ACG) (NLTF Funded)	No	Yes	Yes	Yes	Total cars x \$430

Ranking Options

16. As discussed above, all of these options require a concession in terms of likely effectiveness in increasing the use of electric vehicles.

a. **Free RUC Sticker:**

Of the options identified, our preference is for the "Free RUC Sticker". This is because this option keeps electric vehicles inside (rather than exempt from) the RUC regime, thus maintaining the integrity of the regime.

In terms of payment, the benefits of electric vehicles are not confined to the transport sector and thus the costs of this policy should not fall on the sector. As the costs of this scheme are minor, we recommend that you ask the Minister of Transport to fund it by reprioritising within existing Vote Transport baselines.

² Either via specific appropriation or paid for from savings by the Ministry of Transport (to be confirmed at a later date).
³ Either via specific appropriation or paid for from saving by the Ministry of Transport (to be confirmed at a later date).

b. Subsidy Option:

From an equity perspective the taxpayer funded subsidy option appears favourable as the benefits of electric vehicles are not confined to the transport sector and thus the costs of this policy should not fall on the sector. However, we consider a greater precedent risk arises from this option as Government provision of subsidies in one sector only would be difficult to contain.

c. Motor Vehicle Registration:

One option would be to make vehicles exempt from Vehicle Registration fees. However, the core registration costs of electric vehicles will not provide sufficient incentives therefore this would need to be expanded to cover the total cost of registering a vehicle - \$352 per annum.

This incentive is less than the incentive provided from the RUC equivalent and less related to the stated objectives of the Government and this total cost includes other assorted levies, namely ACC and thus risks undermining the MVR scheme. However the MVR regime is less significant than the RUC regime in terms of broader transport objectives.

d. 1/2 RUC Rate:

This also has an impact on the integrity of the RUC regime and would only be half as effective in terms of the incentive provided.

e. Exempt RUC Rate:

As discussed above this is not a preferable option.

Recommended Action

We recommend that you:

a agree that, in the event that Ministers wish to support an initiative aimed at increasing uptake of electric vehicles, exemptions from RUC are to be avoided;

Agree/Disagree

b agree that irrespective of the objective, the "Free RUC Sticker" system should be the preferred option instead of exemptions from RUC;

Agree/Disagree

c refer this report to the Minister of Transport for his consideration.

Agree/Disagree

Len Starling
Manager, National Infrastructure Unit
for Secretary to the Treasury

Hon Bill English
Minister of Finance

RELEASSED UNDER THE
OFFICIAL INFORMATION ACT

Minister Joyce

This note is to provide you with context and advice on the attached Treasury report "*Briefing on Electric Vehicles*".

Background

In February 2009 you agreed to the recommendations of the Ministry briefing "*Consumer incentives for electric vehicles*".

In early March you discussed the initiative with officials from the Ministry and a second briefing was delivered to you: "*Amendments to the Road User Charges Act 1977: Exempting electric vehicles and giving notice of increases to road user charges*". In order to initiate early dialogue, the Ministry delivered to the Treasury a copy of this briefing.

In response to the briefing, the Treasury delivered the attached report "*Briefing on Electric Vehicles*" to the Minister of Finance. The Ministry was not made aware of this report nor given the opportunity to comment while it was being written. Treasury had not read the previous Ministry briefing "*Consumer incentives for electric vehicles*".

The Treasury's key points are:

- 1) should an emissions trading scheme (ETS) be implemented, there is no policy based reason to provide an initiative aimed at increasing the uptake of electric vehicles;
- 2) that should you consider that an initiative aimed at increasing the uptake of electric vehicles is warranted, that they would prefer a "Free RUC sticker" system rather than an exemption to RUC.

Ministry comment on Treasury key points

The Ministry agrees that an emissions trading scheme is an efficient market based mechanism to encourage emissions reduction at least cost, and that it would create an incentive for people to buy electric vehicles as the cost of carbon is captured within the price of fuel [WGTA 10716] refers. However, the Ministry is aware of your desire to exempt electric vehicles from road user charges from 1 July 2009.

Treasury's "Free RUC sticker" system is the same as 'Government payment of RUC'. Government payment has the advantage of keeping costs of electric vehicle road use transparent and accountable. However, while practical for a short period, it would add an additional administrative step into the RUC system. It would cause increased complexity, confusion, and cost for consumers and government.

Exempting vehicles from RUC has the disadvantage that the accountability of road use by electric vehicles is not transparent, and that lost revenue would not be made up for by appropriated funds. However we believe that an exemption is the least cost approach, as it simplifies compliance processes for electric vehicle owners and government.

Unless you indicate otherwise, the Ministry will proceed with the exemption for electric vehicles as planned [WGTA 11037 "*Amendments to the Road User Charges Act 1977: Exempting electric vehicles and giving notice of increases to road user charges* refers"].

Tony Frost
Senior Adviser - Fuels
Ministry of Transport – Te Manatū Waka

T: +64 4 439 9042 | M: +64 27 224 0738 | F: +64 4 439 9003 | t.frost@transport.govt.nz |
www.transport.govt.nz

RELEASED UNDER THE
OFFICIAL INFORMATION ACT