TE MANATŪ WAKA
MINISTRY OF TRANSPORT

1 December 2023 OC230978

Hon Simeon Brown **Action required by:**

Minister of Transport

Wednesday, 6 December 2023

EXPIRY OF THE RUC EXEMPTION FOR LIGHT ELECTRIC VEHICLES ON APRIL 1, 2024

Purpose

In the coalition agreement between the New Zealand National Party and ACT New Zealand, parties have agreed to work to replace fuel excise taxes with electronic road user charging for all vehicles, starting with electric vehicles. This briefing provides you with advice on the pressing matters relating to the expiry of the RUC exemption for light electric vehicles on April 1, 2024.

Key points

- From 1 April 2024, owners of light electric vehicles (EVs) – electric vehicles with a gross vehicle mass of 3.5 tonnes or less – will pay RUC as the current exemption is scheduled to expire.
- PHEV owners will be entitled to claim a refund of the FED paid.
- You could progress a partial rate for PHEVs, the standard legislative timeframe would see it enacted in November 2024. This leaves an interim period where refunds can be issued for approximately an additional 21,000- 25,000 vehicles.
- To mitigate this risk you could:
    - progress urgent legislative change to the RUC Act to implement the partial rate before 1 April 2024. PCO have advised timelines will be tight, it would require policy approval and authority to issue instructions from Cabinet on 11 December.
    - alternatively, you can remove the entitlement to FED refunds before 1 April 2024 (can be done by Order in Council and will mean that PHEV owners pay both RUC and FED until the partial rate comes into effect) - **recommended**.
    - extend the light RUC EV exemption to November 2024 - not recommended based on the Government's fiscal principle to return to surplus and reduce debt.

- From 1 April 2024, around 3000 very light EVs weighing less than one tonne (for example, mopeds and motorcycles) will also be subject to RUC. We recommend that these vehicles should be subject to the full light RUC rate.
- A small number of very light EVs (under 1000) may not be fitted with distance recorders (odometers). To mitigate this, we recommend that you agree to amend the Road User Charges Act 2012 to allow the Minister of Transport to exempt some vehicles by Order in Council. Current RUC exemption powers are focused on vehicles used off-road so are not suitable for this purpose.
- We also recommend that you agree to amend regulations to permanently exempt electric all-terrain vehicles from the obligation to pay RUC.

Recommendations

We recommend you:

1	**agree** that the road user charges exemption for light electric vehicles will expire on Sunday 31 March 2024	Yes / No
2	**agree** to remove the entitlement to fuel excise duty refunds for owners of Plug-in Hybrid Vehicles by Order in Council before 1 April 2024	Yes / No
3	**agree** to amend the Road User Charges Act 2012 to establish a partial road user charges rate for Plug-in Hybrid Vehicles	Yes / No
4	**agree** that very light electric vehicles should pay the full road user charges rate from Monday 1 April 2024	Yes / No
5	**agree** to amend the Road User Charges Act 2012 to provide the Minister of Transport with a future ability to exempt certain light electric vehicles from the obligation to pay road user charges	Yes / No
6	**agree** to amend regulations before 1 April 2024 to ensure that electric all-terrain vehicles are permanently exempted from road user charges, consistent with the treatment of diesel all-terrain vehicles	Yes / No
7	**indicate** whether you wish to seek Cabinet approval for urgent legislative amendment to progress the matters described in recommendations 1 to 6 before 1 April 2024	Yes / No
	OR	
	indicate whether we should explore options to accelerate the standard legislative timeframe to implement changes before November 2024.	Yes / No
8	**instruct** officials to prepare a Cabinet paper seeking agreement to these policy decisions	Yes / No

David Wood
DCE – Investment and Monitoring
01/12/2023

Hon Simeon Brown
Minister of Transport
..... / ...... / ......

Minister's office to complete: ☐ Approved ☐ Declined

☐ Seen by Minister ☐ Not seen by Minister

☐ Overtaken by events

Comments

Contacts

Name	Telephone	First contact
Carolina Durrant, Principal Adviser Revenue	s 9(2)(a)	✓
Sam Harris, Senior Adviser Major Projects	s 9(2)(a)	

DECISIONS ON URGENT ROAD USER CHARGES MATTERS

1 From 1 April 2024, owners of light electric vehicles (light EVs) (approximately 100,000 in total) are obliged to pay road user charges (RUC), when the current exemption expires. The current light RUC rate (for all vehicles weighing less than 3.5 tonnes) is $76 per 1000 kilometres.

2 Light EVs have been exempted from RUC since 2009 to encourage uptake. The exemption has been extended several times, but it was always the intention that light EVs would be included in the RUC system. NZTA is scheduled to begin communications as soon as possible (after decisions on the matters in this briefing have been made) to inform light EV owners of their obligations to pay RUC from 1 April 2024.

3 Transitioning to the full light RUC rate from 1 April 2024 represents a large implementation task. NZTA must contact all light EV owners and collect distance recorder (odometer) readings for each vehicle. This is an important prerequisite to issuing RUC licences for light EVs.

4 We are preparing separate advice for you on moving all vehicles into the RUC system. The shift of light EVs is one of the first steps in this process and can serve as a test case for how to bring many vehicles into the system at once.

Owners of plug-in hybrid vehicles will have to pay fuel excise duty and RUC when the exemption expires on 1 April 2024

5 Plug-in hybrid electric vehicles (PHEVs) operate using both petrol and electricity. Owners of these vehicles contribute to the costs of the transport system through fuel excise duty (FED), although to a lesser degree than similar petrol/diesel powered light vehicles.[1] Depending on PHEV uptake, we expect there to be between 21,000 and 25,000 PHEVs in the vehicle fleet by 1 April next year.

6 From 1 April 2024 when the exemption expires, owners of PHEVs will be subject to FED on any petrol purchased and the full light RUC rate for kilometres travelled. This approach is inconsistent with how other vehicles in the fleet are charged (fully electric and diesel vehicle owners will be subject only to RUC, and petrol vehicle owners only to FED). This approach will impose higher costs on PHEV owners than on owners of equivalent petrol/diesel/non-plug-in hybrid vehicles.

- The previous government agreed to mitigate this by amending the Road User Charges Act 2012 (the RUC Act) to allow for the establishment of a partial rate for PHEVs (likely between $50-$60 per 1000km). If you agree to progress a partial rate, the standard legislative timeframe would see it enacted in November 2024. The table below provides an indicative process and timeframe for passing that Bill.

[1] Manufacturers generally claim that PHEVs on average consume between 1.6 and 1.7 litres of petrol per 100 kilometres. Some studies have found petrol consumption rates considerably higher than that.

Table One: Indicative timeframe for passing RUC Amendment Bill using standard processes

Action	Indicative Date
Issue drafting instructions to PCO	December 2023
Drafting	December 2023 to January 2024
Departmental consultation/Bill of Rights vet	End January 2024
Ministerial consultation	End January/early February 2024
Cabinet consideration	End February/early March 2024
Introduction	March 2024
First reading and referral to Select Committee	March 2024
Select Committee	April to September 2024
Second and Third Readings	October/November 2024
Enactment/partial PHEV rate comes into effect	November 2024

7 In the interim period between 1 April 2024 and the necessary legislative amendments coming into force, PHEV owners would be able to claim refunds for any FED paid under current settings. The refund process is manual and time-consuming. It requires vehicle owners to keep records of petrol purchases and to submit quarterly refund claims to NZTA that can take up to eight weeks to process.

8 NZTA has expressed concerns about the resourcing implications of processing refunds for an additional 21,000-25,000 vehicles, which will more than double current volumes of refund claims. It is seeking a National Land Transport Fund (NLTF) contribution to cover the costs of six additional staff to process refunds (approximately $1 million if refunds for PHEV owners need to be processed for 18 months).

9 It is also open to potential fraud – it is difficult for NZTA to assess whether the claim is accurate. This creates a risk to the integrity of NLTF revenue, although we do not expect any revenue loss to be large in the overall context of the $4 billion raised every year. We share NZTA's concerns. If you wish to avoid an interim period where refunds are issued, you have three options (more analysis is provided in the table in Appendix One):

9.1 **Option 1: remove the ability for PHEV owners to claim FED refunds before a partial rate comes into effect** – we understand that you have indicated openness to this option. This can be accomplished by amending regulations through an Order in Council before 1 April 2024. This would mean that PHEV owners would pay FED and the full light RUC rate for a period until the partial rate comes into effect. This would result in PHEV owners facing higher costs than other vehicle owners without a compelling reason for those higher costs.

9.2 **Option 2: urgently amend the RUC Act to put in place a partial rate before 1 April 2024** – this option reduces compliance and administration costs by avoiding the need to process refunds. If you wish to progress this option, PCO have advised timelines will be tight. To aim for enactment under urgency in March 2024 it is imperative to get Cabinet decisions and drafting instructions before Christmas. It would require policy approval and authority to issue instructions from Cabinet on 11 December. A possible timeline is set out in Table 2 below

9.3 **Option 3: extend the light EV exemption until 30 November 2024** – this can be done by Order in Council. This option would provide time to pass the necessary legislative amendments to put in place a partial rate and avoid the need for refunds. We do not recommend this option because of the revenue implications – we estimate that extending the exemption by eight months would cost between $55-70 million (exact number depends on light EV uptake).

We carried out consultation on a range of RUC proposals in 2022, including the most appropriate course of action for PHEVs

10 Among submitters on the discussion document, *Driving Change*, many opposed charging both RUC and FED, presumably not realising the owners would be entitled to a FED refund. But most submitters were also opposed to enabling partial RUC rates for PHEVs because they were opposed to RUC exemptions in any form and stated that road users should pay for their road use. It was not always clear whether submitters appreciated that the purpose of the partial rate would be to ensure that PHEVs contribute for their road use but are not charged more overall than light diesel vehicles.

Table Two: Potential timeline for urgent amendments to the RUC Act

Actions	Indicative Timing
Cabinet policy approval	Needed as soon as possible
PCO drafting and Transport reviewing time	December 2023 to February 2024
Bill of Rights Vet/Departmental consultation/Ministerial consultation	Late February 2024
Cabinet Legislation Committee/Cabinet approves introduction	Papers lodged 29 February 2024 Cabinet Legislation Committee considers 7 March Cabinet considers and approves introduction 11 March
Introduction and all stages	Assuming passage under urgency, March 24
Royal Assent/Commencement	March 2024

There are complications associated with collecting RUC from a few types of electric vehicles weighing less than 1 tonne

11 From 1 April 2024, of the approximately 100,000 light EV owners obligated to pay RUC, around 3000 EVs weigh less than one tonne. This includes electric motorcycles, mopeds and all-terrain vehicles (ATVs). There is no single legal definition of these vehicles, but we have been referring to them as very light electric vehicles (VLEVs).

12 We consider it appropriate for VLEVS to be subject to RUC – they use the transport network and should contribute to the costs of maintaining and improving the system (i.e. consistent treatment to equivalent petrol vehicles). There are certain VLEVs where it may not be realistic to collect RUC, for example, they are not fitted with a odometer that meets the requirements in the RUC Act. We are working with NZTA to identify these vehicles, but we expect the number to be small (under 1000).

13 The previous Government agreed to amend the RUC Act to allow the Minister of Transport to exempt certain VLEVs by Order in Council subject to considerations. This is reflected in the current drafting instructions for a Bill and we recommend that you proceed with this amendment. While we do not think there is a case to exempt many vehicles, we consider that adding this power will help to future-proof the system.

14 This has some cost implications of electric motorcycles and mopeds being subject to RUC. It is likely that subjecting these vehicles to the full light RUC rate means that owners will be paying more than owners of equivalent petrol vehicles, because the light RUC rate ($76 per 1000km) is considerably more than the FED paid by most motorcycle owners.

15 Subjecting these vehicles to full RUC costs has the potential to distort the market for these vehicles, but we consider that the market distortion effect is likely to be small, both because of the small market size (approximately 3000 vehicles currently in the fleet) and the differential in purchase price (EVs are generally more expensive).

16 We recommend these vehicles pay the full rate of RUC, because we do not consider any significant market distortion to be likely. Higher purchase prices and supply constraints are much higher barriers to uptake in the short term. Requiring these vehicles to pay RUC would align with a broader transition of all vehicles into the RUC system.

17 If you are concerned about the potential market distortion effect, there are two possible options:

17.1 **amend the RUC Act to establish a reduced rate for mopeds and motorcycles.**. This would need to be done through urgent legislation to avoid an interim period where the vehicles are paying full RUC rates. We do not recommend this option because it potentially creates a precedent for other groups of vehicle owners to request reduced rates on the grounds that their charges differ from other similar vehicles.

17.2 **exempt the relevant vehicles and recover costs through the annual vehicle licensing system.** This option would involve amending the RUC Act to include a power to exempt these vehicles from RUC. It would also require amending the Land Transport Act 1998 to authorise adding a fee to the annual licensing charges of each VLEV owner and including this in regulations. We are doing further work on the practicality of this option.

We need to amend the definition of ATVs to ensure electric ATVs are also exempted

18 Diesel ATVs are exempted from RUC on the grounds that they are mostly used off-road. The definition currently only applies to internal combustion engine vehicles. This means we will need to amend regulations to ensure that electric ATVs are also exempted. This can be done by Order in Council, so is not dependent on urgent legislation.

We wish to discuss your preferred approach to the matters in this briefing

19 We are keen to understand your preferences and how these matters fit with your 100-day plan aspirations. If you wish to proceed with urgent legislation to put in place partial rates for PHEVs, we will need to move quickly. We will prepare a Cabinet paper seeking approval to the policy changes and to instruct PCO to draft the necessary Bill.

20 As noted in paragraph 12 it would be challenging to draft, pass and implement urgent legislation before 1 April 2024, particularly given the lack of clarity around the House timetable for 2024. However, if you do wish to proceed with urgent legislation, it could include the following matters (depending on your decisions on the matters in this briefing):[2]

- adding a provision to the RUC Act allowing partial rates to be set for PHEVs.
- adding a provision to the RUC Act providing for a one-month amnesty period for non-payment of RUC after 1 April 2024.
- potentially amending the RUC Act to allow for a reduced RUC rate to be set for mopeds and motorcycles. [not recommended]
- future proofing the RUC Act to enable the Minister of Transport to exempt certain VLEVs by Order in Council.
- amending the Road User Charges Regulations 2012 to create a new RUC vehicle type for PHEVs.
- amending the Road User Charges (Rates) Regulations to set a partial rate for PHEVs.
- amending the definition of ATVs in the Road User Charges (Classes of RUC Vehicles) Exemption Order 2012 to enable electric ATVs to be exempted from RUC, consistent with the treatment of diesel ATVs.

[2] Getting amendments to regulations in place before 1 April 2024 is not dependent on urgent legislation, but urgent amendments to the RUC Act would provide an opportunity to implement all of the necessary amendments at once.

- Amending the definition of ATVs in the Land Transport (Road User) Rule 2004 to ensure consistency.

Risks

21 If you choose Option 1 (remove the ability for PHEV owners to claim FED refunds before a partial rate comes into effect), there will likely be some negative feedback from PHEV owners who will have to pay both FED and RUC for a period. This can be mitigated by being clear that the situation is temporary, and we are looking to put the partial rate in place as quickly as possible.

22 There is also a risk that people may be discouraged from purchasing PHEVs. This may slow progress towards decarbonising the vehicle fleet if people instead choose to purchase petrol or diesel vehicles. We do not consider this to be a big risk, provided we are clear that PHEV owners will only be required to pay FED and the full RUC rate for a short period of time.

23 NZTA has certain dates it needs to meet in order to complete implementation activities before 1 April 2024. For example, it needs to know by 2 February 2024 whether there is going to be a partial rate for PHEVs and the amount of the partial rate in order to make the necessary system changes.

Appendix One: Costs and benefits of options relating to PHEVs

Option	Impact on NLTF revenue	Costs for PHEV owners	Administration costs	Legislative implications
Option 1: Remove the ability of PHEV owners to claim FED refunds before 1 April 2024, and require them to pay both FED and RUC for a period	Net positive impact on the NLTF because PHEV owners will be paying both FED and RUC. We expect that an additional $55-70 million will be generated in RUC between April and November 2024. It is not possible to accurately estimate the amount of FED received because fuel consumption varies among individual vehicles. Avoids the loss of any revenue because of fraudulent refund claims from PHEV owners, although we expect this would be marginal in the context of the overall NLTF (approximately $4 billion of revenue generated per year).	PHEVs will be paying the full light RUC rate ($76 per 1000 kilometres) until a partial rate can be put in place (by November 2024 according to current timeline). PHEV owners will also have to pay the administration costs associated with purchasing RUC licences. Online purchases carry an administration fee of $12.44 and over the counter sales have an administration fee of $13.71. For a period, PHEV owners will have to pay FED as well. Costs will vary depending on vehicle type and usage.	This option would have the smallest impact on NZTA administratively, because it would remove the need for resource to handle additional refunds. NZTA is currently seeking approximately $1 million from the NLTF to employ six additional staff to process refund applications for 18 months after 1 April 2024.	Does not require amendment to primary legislation. Cabinet policy approval could be obtained before the end of 2023 and the necessary Order in Council could be drafted and approved early in 2024.
Option 2: urgently amend the RUC Act to put a partial rate in place before 1 April 2024 and remove the ability to claim FED refunds	Marginal impact. PHEVs will be paying a partial RUC rate (likely between $50 and $60 per 100-kilometres. The key benefit of this option is that it avoids both the need to process additional refunds and avoids a situation where PHEV owners are paying two road taxes.	Lower costs than Option 1. PHEV owners will be paying a reduced RUC rate (likely between $50 and $60 per 1000 kilometres). PHEV owners will not be able to claim FED refunds.	Avoids the approximately $1 million of costs associated with employing six additional staff to process refund applications.	Requires urgent amendment to the RUC Act. Cabinet approval is likely to be needed in early December 2023, with drafting occurring from December 2023 to early February 2024. The Bill would need to be passed during February/early March and commence in early/mid March 2024. We would also need to make consequential amendments to regulations to establish a new PHEV vehicle type, insert the partial rate and remove the ability of PHEV owners to claim FED refunds.
Option 4: extend the light EV exemption to 30 November 2024	This will have a negative impact on NLTF revenue. Depending on light EV uptake, we estimate that between $55-70 million would be lost between April and November 2024.	This is the lowest cost option for PHEV owners because it will mean the requirement to pay RUC is deferred until 30 November 2024. PHEV owners would continue to pay FED between April and November 2024, and would not be eligible to claim refunds because they would not yet be registered as RUC vehicle. We have calculated that the RUC exemption saves the average light EV owner $836 per year (based on an average distance travelled of 11,000 kilometres per year).	Removes the need for additional staff to process refund claims, with a saving of approximately $1 million. s 9(2)(f)(iv) [redacted]	The exemption can be extended by Order in Council. You could seek Cabinet approval to extend the exemption before the end of 2023 and the necessary Order in Council could be drafted and approved in early 2024.

In Confidence

Office of the Minister of Transport

Cabinet Business Committee

Road User Charges – Preparing the system for the entry of light electric vehicles

Proposal

1 To seek policy approval for urgent amendments to the Road User Charges Act 2012 and associated amendments to regulations. The purpose of these proposed amendments is to ensure that appropriate settings are in place for certain light electric vehicles when the road user charges exemption expires at the close of 31 March 2024.

Relation to government priorities

2 The Government is committed to investing in infrastructure and reducing debt. This proposal is also a first step towards replacing fuel excise taxes with electronic road user charging for all vehicles.

Executive Summary

3 Road user charges (RUC) is a distance charging system that applies to all vehicles using a motive power other than petrol. There are 1.18 million active vehicles in the RUC system, of which 952,000 are light vehicles.

4 Since 2009, light electric vehicles (EVs) have been exempted from the obligation to pay RUC as part of efforts to encourage uptake.

5 The RUC exemption for light EVs is due to expire at the close of 31 March 2024, with light EV owners required to pay RUC from 1 April 2024.

6 Owners of plug-in hybrid vehicles currently pay fuel excise duty (FED) on any petrol purchased. From 1 April 2024, they will also need to pay RUC at the current light vehicle rate of $76 per 1000 kilometres. This will result in PHEV owners facing higher costs than the owners of other light vehicles. I propose to address this by amending the Road User Charges Act 2012 (RUC Act) to allow for the setting of a **partial RUC rate** ($53 per 1000 kilometres) that reflects that PHEV owners are also contributing to the system through FED. I also propose to remove the ability of PHEV owners to claim refunds for any FED paid.

7 From 1 April 2024, electric motorcycles and mopeds (along with other very light electric vehicles will need to pay the full light RUC rate, which is likely to lead to higher costs for these vehicle owners than for their petrol equivalents. However, I propose I be given the power to exempt these vehicles through Order-in-Council (as outlined in paragraphs 30-34), and it is my intention to do so. I considered establishing a **reduced RUC rate** for electric mopeds and motorcycles to reflect this difference in costs. However, I am concerned that doing so may undermine the integrity of our revenue system because other groups may seek reduced rates.

8 I propose some other RUC Act changes to smooth the entry of light EVs into the RUC system, including:

8.1 providing for a one- or two-month transitional period starting on 1 April 2024. During this time, the New Zealand Transport Agency will not issue assessments for unpaid RUC and no enforcement will be carried out in respect of light EVs. Owners of light EVs will be expected to have paid any outstanding RUC by the end of the transitional period.

8.2 providing an ability for the Minister of Transport to exempt certain very light electric vehicles by Order in Council, if the Minister is satisfied that the administrative and compliance costs of collection would outweigh the revenue benefits or where RUC cannot realistically be collected (for example, where the vehicle was not manufactured with an odometer).

9 Regulation changes are also necessary to implement these proposals. To ensure that the changes are in place by 1 April 2024, I propose that we move the necessary amendments under urgency.

Background

10 RUC, a distance-based charging system, is one of the key tools for raising revenue to fund the maintenance and improvement of New Zealand's land transport system. All vehicles that primarily use a motive power other than petrol are subject to RUC. This currently consists of all heavy vehicles (with a gross vehicle mass of 3.5 tonnes or more) and light diesel vehicles. The RUC system generated $1,444 million in the 2022/23 financial year. This represents 32 percent of the total revenue collected for the National Land Transport Fund (NLTF).

11 The purpose of RUC is to impose charges on vehicles for their use of the roads that are in proportion to the costs that the vehicles generate. RUC is purchased in advance of travel and in 1,000-kilometre units. Rates vary widely depending on the size, weight and other characteristics of a vehicle. For light vehicles (anything with a gross vehicle mass of less than 3.5 tonnes), the RUC rate is currently $76 per 1,000 kilometres. The New Zealand Transport Agency (NZTA) collects RUC and administers the system. NZTA is responsible for issuing assessments for unpaid RUC, while NZ Police is responsible for roadside enforcement and prosecuting offences.

12 Electric vehicles (EVs) are currently exempt from the obligation to pay RUC. This exemption has been in place since 2009 and its primary purpose is to encourage uptake of electric vehicles.

13 Forecasting suggests there will be approximately 100,000 light EVs in the fleet by April 2024, around two percent of the vehicle fleet.

14 Owners of light battery EVs (battery electric vehicles that are wholly powered by electricity) are not currently paying any road taxes. It is relatively straightforward to bring these vehicles into the RUC system, although it still represents a large and costly implementation task for NZTA.

15 The task is more complicated for plug-in hybrid EVs (PHEVs). As these vehicles are partly petrol-powered, owners of these vehicles currently contribute to the costs of the transport system by paying fuel excise duty (FED) on any petrol purchased. From 1 April 2024, owners of these vehicles will also be subject to RUC.

Analysis

The light EV RUC exemption should be allowed to expire on 31 March 2024

16 Revenue loss associated with the light EV RUC exemption had been relatively minor because light EVs made up a small proportion of the overall fleet. However, the impacts on revenue will continue to rise as the number of light EVs increase. Officials advise me that allowing the exemption to expire at the close of 31 March 2024 will generate $55 to $86 million in revenue over the following 12 months following the expiry of the exemption.

17 Allowing the exemption to expire is also the fairer solution. To date, light EVs have not been contributing to the costs of the transport system in the same ways as other vehicles despite generating the same costs as other light vehicles. While this has encouraged uptake of light EVs, there is a strong case for owners of these vehicles to begin contributing to the costs of the system.

18 There is some risk that requiring light EVs owners to pay RUC may discourage people from purchasing these vehicles. I do not consider this to justify extending the exemption. EVs are generally cheaper to run (electricity is cheaper than petrol) and the purchase price (while currently higher than equivalent petrol and diesel vehicles) will likely continue to drop as the market develops.

There are some issues with integrating plug-in hybrid vehicles into the RUC system

19 PHEVs are powered by a combination of electricity and petrol. To date, these vehicles have been covered by the light EV RUC exemption and owners have only had to pay FED on any petrol purchased.

20 From 1 April 2024, owners of these vehicles will also be subject to RUC (at the current light vehicle rate of $76 per 1,000 kilometres). If we take no action, this means that PHEV owners will be subject to both FED and RUC, resulting in higher costs and different treatment to all other vehicles in the fleet. Officials estimate that there will be between 21,000 and 25,000 PHEVs in the fleet by 1 April 2024.

21 Under the Land Transport Management (Apportionment and Refund of Excise Duty and Excise-Equivalent Duty) Regulations 2004, PHEV owners may claim refunds for the FED paid, after 1 April 2024 when they become RUC vehicles. This process is cumbersome and manual – it involves vehicle owners keeping records of their petrol purchases and use, and submitting quarterly refund applications which can take up to eight weeks to process. It is also open to fraudulent claims as it is difficult for NZTA to assess the accuracy of any claims.

22 The refund process is resource intensive – NZTA is requesting funding for additional staff to process refunds for an additional 20,000-25,000 vehicles per quarter. NZTA is considering making a request for money from the NLTF to be allocated to this task under Section 9 of the Land Transport Management Act 2003.

Establishing a partial rate for PHEVs would avoid the need for refunds

23 The current RUC rate for all light vehicles is $76 per 1,000 kilometres. Asking PHEV owners to pay this rate would result in these vehicle owners paying higher costs than all other light vehicles. For example, assuming a light vehicle travels 11,000 kilometres a year, possible average costs for different vehicle types would be as follows:

Vehicle type	Average annual tax costs (including GST)
Light petrol vehicle (assuming consumption of 9L/100kms)	$797
Light diesel or electric vehicle	$836
PHEV (assuming petrol consumption of 2.86L/100km)	$1,089 ($836 in RUC and $253 in FED)

24 I do not see any good reason to require owners of PHEVs to pay both RUC and FED for distance travelled using petrol. The RUC Act does not currently allow for partial rates of RUC. Therefore, I recommend that Cabinet agree to amend the RUC Act to establish a partial RUC rate for PHEVs to account for those owners also paying FED. I also recommend that Cabinet agree to amend regulations to remove the ability for PHEV owners claim FED refunds, given the appropriate contribution is reflected in the partial RUC rate.

25 I recommend that Cabinet agree to progress urgent legislation to enact these changes. This will ensure that the partial rate is in place by 1 April 2024, and remove the need for an interim period where PHEV owners need to claim refunds. To implement this proposal, urgent legislation will need to do the following:

- Amend the RUC Act to enable the setting of partial rates of RUC.
- Amend the Road User Charges Regulations 2012 require a current distance recording on the first application for a RUC licence and to create a new vehicle type and weight band for PHEVs.
- Amend the Road User Charges (Rates) Regulations 2015 to establish the partial rate for PHEVs
- Amend the Land Transport Management Act (Apportionment and Refund of Excise Duty and Excise-Equivalent Duty) Regulations 2004 to remove the ability of PHEV owners to claim FED refunds.

The partial rate should be set at $53 per 1000 kilometres

26 PHEVs are used in a variety of different ways – some owners rely more on the electrical motor, while others predominantly use petrol. This may mean that a partial rate may result in overcharging of some PHEV owners whilst others are undercharged due to the variation in fuel consumption and usage.

27 I recommend that we set the partial rate for PHEVs at $53 per 1000 kilometres. This corresponds with an estimated petrol consumption of just under three litres per 100 kilometres that is likely to be towards the middle of real-world consumption rates.

28 PHEV owners who rely more on the electric motor will experience slightly lower costs than those who rely more on petrol. All PHEV owners will face lower compliance costs because they will not have to submit quarterly refund claims. I have asked officials to monitor the effectiveness of the partial rate and I will report back to Cabinet if any changes are necessary.

29 I note that there are disparities in the land transport revenue system overall, such as the amount of FED charged between light petrol vehicles with different fuel economies (refer Appendix 1).

I recommend that we exempt all very light electric vehicles from the obligation to pay RUC

30 To date, very light electric vehicles (vehicles weighing less than one tonne) such as electric mopeds and motorcycles have faced no costs for their road use. This is scheduled to end on 31 March 2024 at which time owners of these vehicles will be subject to the full light RUC rate of $76 per 1,000 kilometres. This is likely to impose higher costs on these vehicles than for petrol equivalents. This may have the effect of distorting the market for these vehicles.

31 In order to avoid any market distortion effect, I recommend that we exempt all very light electric vehicles from the obligation to pay RUC. Estimates are there will be around 3000 of these vehicles in the fleet by 1 April 2024 but the exact number will be dependent on uptake.

32 Exempting these vehicles does mean the current imbalance between owners of electric and petrol vehicles will remain – owners of very light electric vehicles will not be contributing through RUC to the costs of the system while owners of equivalent petrol vehicles are doing so. Officials estimate that owners of petrol motorcycles pay between $30-35 per 1000 kilometres.

33 This proposal requires amending the RUC Act to create a power to exempt very light electric vehicles by regulation. There is currently no legal definition of a very light electric vehicle – officials have been using a working definition of an electric vehicle with a gross vehicle mass of 1 tonne or less. There may be an opportunity to further refine this definition to ensure that only the intended vehicles are captured by the exemption.

34 I therefore ask that Cabinet to give me the ability to make decisions on what constitutes a very light electric vehicle. I will bring this back to Cabinet when I seek approval to introduce the Bill that is necessary to make these changes.

We need to amend regulations to recognise electric all-terrain vehicles

35 All-terrain vehicles (ATVs) are currently exempted from the obligation to pay RUC, as being unsuitable for regular road use. However, the current definition of ATV on captures combustion engine vehicles. Electric ATVs are generally heavier than diesel equivalents, meaning it will likely be necessary to raise the current weight limit as well as provide for ATVs powered by electricity.

36 An amendment to the Road User Charges (Classes of RUC Vehicles) Exemption Order 2012 will be necessary to implement this proposal. For consistency across legislation, changing this definition will also require amendments to other places where ATV is defined:

36.1 Land Transport Rule: Vehicle Standards Compliance 2002

36.2 Land Transport (Road User Rule) 2004

36.3 Land Transport (Motor Vehicle Registration and Licensing) Regulations 2011.

We should allow a one- or two-month implementation period to support successful integration of light EVs into the RUC system

37 Integrating light EVs into the RUC system represents a large implementation task for NZTA. Initial odometer readings need to be collected from the approximately 100,000 light EVs expected to be in the fleet by April 2024.

38 We can support successful implementation by amending the RUC Act to include a transitional provision providing for a one-month implementation period starting on 1 April 2024. During this period, NZTA would not issue assessments for unpaid RUC incurred by light EVs entering the RUC system and no enforcement action would be taken (for example, where a RUC licence has not been displayed). This would provide light EV owners with time to understand their obligations and comply. If any unpaid RUC is not purchased before the end of the period, then NZTA would start issuing assessments.

39 To provide additional assurance to light EV owners and NZTA, we could make the implementation period two months, beginning on 1 April 2024. I do not consider that we should extend the implementation period any further than this.

NZTA uses several agents to enable the public to buy RUC over the counter

40 Approximately 14.6 percent of total RUC licences are purchased over the counter, of which, 54 percent are sold via NZ Post stores. This amounts to roughly 300,000 licences and we are not expecting the number of licences purchased through NZ Post to substantially increase.

41 NZTA has an online pathway for the initial RUC purchase for EV owners that is anticipated to have a high uptake as compared with existing RUC customers.

NZTA is confident of delivery

42 This includes the provision of system changes to accommodate a partial RUC rate, which is critical for success, and efficient onboarding of EV owners into the RUC system. In addition, NZTA will be working closely with front counter agents to support onboarding.

43 NZTA has delivery experience in this area. For example, NZTA has implemented under urgency RUC rate changes which were put in place to give relief to the impacts of COVID-19. During 2022, there were an average of 290,000 RUC purchases per month (with a high of 440,000 purchases in the month of April).

44 The other big determinant of success will be the ability to communicate changes with EV owners, beginning no later than 20 January 2024.

We have commenced work to replace fuel excise taxes with electronic road user charging for all vehicles

45 Implementing an electronic distance-based charging removes current inconsistencies from the current dual FED and RUC system and improves the evidence base for making smarter transport investments. I am progressing the move from FED to RUC

as part of the wider work on the revenue system. EVs paying RUC is the first step towards the full transition (refer Appendix 2).

Cost-of-living Implications

15 The proposals in this paper will increase the cost of transport for owners of light EVs, because they will be subject to RUC from 1 April 2024. Assuming that a light EV travels 11,000 kilometres, the cost could be approximately $836 per year. Costs increases for PHEV owners will be slightly less (given they already pay FED). Assuming that a PHEV owner travels 11,000 kilometres per year, and my preferred partial rate of $53 per 1000 kilometres is chosen, additional costs would be $583 per year.

Financial Implications

46 The amount of revenue added to the NLTF once light EVs begin paying RUC in April 2024 will be in the range of $55 to $86 million in the 12 months following the expiry of the exemption. Officials from the Ministry of Transport and NZTA will continue to monitor the uptake of EVs and the resulting impact on NLTF revenue and will report to me about any significant revenue risks that arise.

47 The additional revenue from bringing light EVs into the RUC system will help to deliver the Government Policy Statement on land transport (GPS) that we have started re-writing. However, I do not expect that this additional revenue will have any material impact on the revenue forecast used in the development of the GPS.

Legislative Implications

48 Amendments to transport legislation and attendant regulations will be required to implement the proposals Specifically, there will be changes to the following legislation:

- **Road User Charges Act 2012:**
  - Amendments to enable partial rates of RUC.
  - Amendments to create a 1-month implementation period beginning on 1 April 2024, during which light EV owners will not be assessed or penalised for unpaid RUC, provided this is paid by the end of the implementation period.
  - Amendments to enable the Minister of Transport to exempt certain very light EVs by Order in Council
- **Road User Charges (Rates) Regulations 2015:** Adding a partial rate for PHEVs.
- **Road User Charges Regulations 2012:** Creating a new RUC vehicle type for PHEVs.
- **Road User Charges (Classes of RUC Vehicles) Exemption Order 2012**: Adding certain very light EVs that are used off road and all terrain very light EVs to the list of exempted vehicles.

- **Land Transport (Road User) Rule 2004:** To align the definition of ATV with the amended definition in RUC legislation.

- **Land Transport Management Act (Apportionment and Refund of Excise Duty and Excise-Equivalent Duty) Regulations 2004:** Amending to align with the changes to RUC legislation, in particular removing the ability to claim refunds of the excise duty, excise-equivalent duty, and goods and services tax charged in respect of motor spirits used in a PHEV.

49 I recommend that these amendments should be progressed under urgency to ensure that the appropriate legislative settings are in place by 1 April 2024.

Impact Analysis

Regulatory Impact Statement

50 A Regulatory Impact Statement has been completed and is appended to this paper. It has been reviewed by the Ministry of Transport's internal review panel. The requirement for quality assurance of RISs has been suspended for decisions relating to 100 Day priorities taken within the 100 Days. However, the Ministry notes that due to the limited timeframe to assess impacts there are some gaps in the analysis. This is particularly around the growth in demand for PHEVs and VLEVs, the impacts of the preferred options on future uptake of ZEVs, and stakeholder views on the specific proposals.

51 The impacts here will most likely be relatively small in the short-term due to the small number of PHEVs and VLEVs in the market. However, the paper notes that if we see growth in demand for these vehicles then further regulatory work will be required. We also note the Treasury requirement that there be a post-implementation review within a year of enactment, providing an opportunity to consider if further changes are needed.

Climate Implications of Policy Assessment

52 The Climate Implications of Policy Assessment (CIPA) team has been consulted and confirms that the CIPA requirements do not apply to this proposal as it is not expected to result in any significant, direct emissions impacts.

Human Rights

53 The proposals in this paper are consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Consultation

54 This paper has been consulted with NZTA and the Treasury. The Department of Prime Minister & Cabinet has been informed.

Communications

43 NZTA will use a mix of direct communications, advertising and engagement with industry to ensure that EV owners (approximately 105,000) are aware they need to buy a RUC licence between 1 April and 1 May 2024 (or 1 June), know how to buy a licence, understand what RUC is and why they need to pay it.

44 NZTA will contact EV owners directly in late January 2024 and again in early March 2024, using contact details they hold from the Motor Vehicle Register. The first

communication will advise them that they will be required to pay RUC from 1 April 2024 and the second communication will explain the process for buying a licence.

45 NZTA will use their existing RUC collection processes to onboard EV vehicles, with some adjustments to make it as easy as possible for EV owners – such as allowing them to purchase the first licence online.

Proactive Release

45 The Ministry of Transport will proactively release this Cabinet paper with appropriate redactions under the Official Information Act 1982 within 30 business days of Cabinet confirming a decision, in line with guidelines from the Cabinet Office (CabGuide, and the Cabinet Office circular, Proactive Release of Cabinet Material: Updated Requirements [CO (18) 4]).

Recommendations

The Minister of Transport recommends that the Committee:

1 **note** that the road user charges exemption for light electric vehicles will expire as legislated on 31 March 2024;

2 **note** that owners of light electric vehicles will be subject to road user charges from 1 April 2024;

3 **agree** to enable the setting of a partial road user charges rate for plug-in hybrid vehicles;

4 **agree** to establish a partial road user charges rate of $53 per 1000 kilometres for plug-in hybrid vehicles;

5 **agree** to create a new vehicle type and weight bands for plug-in hybrid vehicles;

6 **agree** to remove the ability to claim refunds of the excise duty, excise-equivalent duty, and goods and services tax charged in respect of motor spirits used in a plug-in hybrid vehicle;

7 **agree** to establish a one-month transition period, beginning on 1 April 2024;

OR

8 **agree** to establish a two-month transition period, beginning on 1 April 2024;

9 **agree** that owners of very light electric vehicles will be exempt from road user charges rate from 1 April 2024;

10 **agree** that the Minister of Transport is authorised to make final decisions on the definition of a very light electric vehicle;

11 **agree** to amend the definition of all-terrain vehicles to also capture electric all-terrain vehicles, and to amend associated rules and regulations to ensure a consistent definition;

12 **agree** that the distance recording of a vehicle be provided at first application for a RUC licence;

13 **agree** that the legislative amendments necessary to implement these proposals will be progressed under urgency;

14 **invite** the Minister of Transport to issue drafting instructions to the Parliamentary Counsel Office to give legislative effect to the policy proposals above in recommendations 3-11 (including for primary legislation and any associated regulations) including any consequential amendments, savings and transitional provisions;

15 **authorise** the Minister of Transport to make decisions that are consistent with the overall policy provided that these decisions are confirmed when the road user charges amendment Bill is considered for introduction.

16 **authorise** the Ministry of Transport to share draft legislation with the New Zealand Transport Agency.

17 **authorise** the New Zealand Transport Agency can begin communications to inform light electric vehicles owners of their road user charges obligations.

18 s 9(2)(f)(iv) [redacted]

Authorised for lodgement

Hon Simeon Brown

Minister of Transport

Current light vehicle taxes and charges

December 2023

Vehicle type	Current FED/RUC charges per year ($ inc GST)		Proposed FED/RUC charges per year ($ inc GST)	
Light petrol vehicles	Fuel excise duty* - **Average vehicle (9L/100km)** - 2015 Toyota Aqua (hybrid) (3.9L/100km) - 2023 Suzuki Swift (hybrid) (4.6L/100km) - 2022 Mitsubishi Outlander (8L/100km) - 2007 Toyota Rav4 (9.3L/100km) - 2006 Mazda 3 (9.4L/100km) - 2014 Kia Carnival people mover (12.9L/100km) - 2003 Holden Commodore V8 (16.4L/100km)	 **797** 345 408 709 824 833 1,143 1,453	Fuel excise duty* - **Average vehicle (9L/100km)** - 2015 Toyota Aqua (hybrid) (3.9L/100km) - 2023 Suzuki Swift (hybrid) (4.6L/100km) - 2022 Mitsubishi Outlander (8L/100km) - 2007 Toyota Rav4 (9.3L/100km) - 2006 Mazda 3 (9.4L/100km) - 2014 Kia Carnival people mover (12.9L/100km) - 2003 Holden Commodore V8 (16.4L/100km)	 **797** 345 408 709 824 833 1,143 1,453
Light diesel vehicles	All light diesel vehicles (including utes, vans etc) pay road user charges.	836	All light diesel vehicles (including utes, vans etc) pay road user charges.	836
Electric vehicles	Not currently subject to any fuel excise duty or road user charges	0	Subject to the light RUC rate of $76 per 1,000 kilometres	836
Plug-in hybrid vehicles (PHEVs)	Fuel excise duty on any petrol purchased - Low petrol use** real-world estimate (2.86L/100km) - Higher petrol use*** real-world estimate (4.5L/100km) - Manufacturer estimates (1.5L/100km, unlikely to be realistic in the real world)	 253 399 133	Subject to a partial road user charges rate of $53 per 1,000 kilometres + fuel excise duty on any petrol purchased - partial road user charges + low petrol estimate (2.86L/100km) - partial road user charges + high petrol estimate (4.5L/100km) - partial road user charges + manufacturer petrol estimate (1.5L/100km)	 836 982 716

* The L/100km estimates for petrol vehicles are based on factory-tested manufacturer claimed rates. Real world rates will almost always be higher, depending on use and the vehicle's age and condition.

** The "low petrol use" real-world estimate for PHEVs is likely to be a city-commuter with limited longer trips. Basic testing by Consumer NZ in 5 PHEVs (driving from Lower Hutt to Wellington and back 5 days per week, a run to the supermarket, and one trip over the Remutaka hill), found petrol use was 1.5–3.5 L/100km.

*** The "higher petrol use" real-world estimate for PHEVs is likely to be a user driving longer distances and charging less regularly.

Notes to table:

- There is also 10.4 cents per litre (GST exclusive) excise on CNG and LPG. Very few vehicles use these fuels, so they have not been included in the table.
- The numbers above assume average distance travelled of 11,000km per year for all vehicles.
- The road user charges exemption for light electric vehicles expires at the end of 31 March 2024. The exemption for heavy electric vehicles does not expire until the end of 31 December 2025.

TE MANATŪ WAKA
MINISTRY OF TRANSPORT

Work to replace fuel excise taxes with electronic road user charging for all vehicles, starting with electric vehicles

Indicative Timeline

December 2023

s 9(2)(f)(iii)

[redacted]

Transitioning from FED to RUC at a faster pace than would occur ‘naturally’ improves fairness in the land transport revenue system, facilitates better land transport revenue sustainability, and [illegible]nsition to advanced efficient variable road-based pricing systems.

There are options regarding a phased transition versus a wholesale transition that are not included in this high level A3.

Cabinet Business Committee

Minute of Decision

Road User Charges: Preparing the System for the Entry of Light Electric Vehicles

Portfolio **Transport**

On 13 December 2023, the Cabinet Business Committee **referred** the submission under CBC-23-SUB-0024 to Cabinet on 18 December 2023 for further consideration, revised as appropriate in light of the discussion at the meeting.

Rebecca Davies
Committee Secretary

Present:
Rt Hon Christopher Luxon (Chair)
Rt Hon Winston Peters
Hon David Seymour
Hon Chris Bishop
Hon Simeon Brown
Hon Paul Goldsmith
Hon Dr Shane Reti
Hon Shane Jones
Hon Erica Stanford
Hon Judith Collins
Hon Mark Mitchell

Officials present from:
Office of the Prime Minister
Department of the Prime Minister and Cabinet

Cabinet

Minute of Decision

Road User Charges: Preparing the System for the Entry of Light Electric Vehicles

Portfolio **Transport**

On 18 December 2023, following reference from the Cabinet Business Committee, Cabinet:

1 **noted** that the road user charges (RUC) exemption for light electric vehicles will expire as legislated on 31 March 2024;

2 **noted** that owners of light electric vehicles will be subject to RUC from 1 April 2024;

3 **agreed** to enable the setting of a partial RUC rate for plug-in hybrid vehicles;

4 **agreed** to establish a partial RUC rate of $53 per 1000 kilometres for plug-in hybrid vehicles;

5 **agreed** to create a new vehicle type and weight bands for plug-in hybrid vehicles;

6 **agreed** to remove the ability to claim refunds of the excise duty, excise-equivalent duty, and goods and services tax charged in respect of motor spirits used in a plug-in hybrid vehicle;

7 **agreed** to establish a two-month transition period, beginning on 1 April 2024;

8 **agreed** that owners of very light electric vehicles will be exempt from RUC rates from 1 April 2024;

9 **authorised** the Minister of Transport to make final decisions on the definition of a very light electric vehicle;

10 **agreed** to amend the definition of all-terrain vehicles to also capture electric all-terrain vehicles, and to amend associated rules and regulations to ensure a consistent definition;

11 **agreed** that the distance recording of a vehicle be provided at first application for a RUC licence;

12 **agreed** that the legislative amendments necessary to implement the above decisions will be progressed under urgency by 31 March 2024;

13 **invited** the Minister of Transport to issue drafting instructions to the Parliamentary Counsel Office to give legislative effect to the decisions in paragraphs 3-11 (including for primary legislation and any associated regulations) including any consequential amendments, savings and transitional provisions;

14 **authorised** the Minister of Transport to make decisions that are consistent with the overall policy provided that those decisions are confirmed when the Road User Charges Amendment Bill is considered for introduction;

15 **authorised** the Ministry of Transport to share draft legislation with the New Zealand Transport Agency;

16 **authorised** the New Zealand Transport Agency to begin communications to inform light electric vehicle owners of their RUC obligations;

17 s 9(2)(f)(iv) [redacted]

Rachel Hayward
Secretary of the Cabinet

Regulatory Impact Statement: Amending legislation to enable light electric vehicles to enter the road user charges system

Coversheet

Purpose of Document	
Decision sought:	*To seek Cabinet approval to legislative amendments to smooth the entry of light electric vehicles into the road user charges system from 1 April 2024.*
Advising agencies:	*Ministry of Transport*
Proposing Ministers:	*Minister of Transport*
Date finalised:	*15/12/2023*

Problem Definition

The road user charges (RUC) exemption for light electric vehicles is scheduled to expire on 31 March 2024, meaning that owners of these vehicles will be subject to charges from 1 April. This could impose different or potentially unreasonable costs on owners of plug-in hybrid vehicles and very light electric vehicles (for example, electric motorbikes).

Executive Summary

Light electric vehicles (EVs) are currently exempted from the obligation to pay road user charges (RUC) in order to encourage their uptake. This exemption is scheduled to expire at the end of 31 March 2024, with light EV owners subject to RUC from 1 April 2024.

From 1 April 2024, plug in hybrid vehicle (PHEV) owners will need to pay RUC but also fuel excise duty (FED) on any petrol purchased. The requirement to pay both taxes creates a situation where PHEV owners will face considerably higher costs than equivalent petrol, diesel or battery electric vehicles. Our preferred option for resolving this issue is to amend the Road User Charges Act 2012 to put in place a **partial rate** ($53 per 1000 kilometres) for PHEVs. The partial rate would reflect that PHEVs are also contributing to the system through FED.

Alongside this, we would remove the entitlement for PHEV owners to claim refunds for any FED paid because the process is time-consuming, manual, and open to fraud. We expect that these actions will ensure that costs are relatively equitable across most light vehicles.

For electric motorcycles, mopeds and other very light electric vehicles, the light RUC rate ($76 per 1000 kilometres) is considerably higher than the taxes paid by owners of petrol motorcycles. While it would be possible to amend the RUC Act to allow **reduced rates** to be set, the Ministry does not prefer this option because it potentially creates a precedent for other vehicle owners to request reduced rates where charges and taxes do not exactly align across different groups. This carries a revenue and system integrity issue because the differences between FED and RUC mean it is not possible to exactly align charges and taxes across petrol, diesel and electric vehicles despite their impact on the transport network being similar.

In addition, the number of VLEVs currently in the fleet is very small (approximately 3000 by April 2024. We do not consider that the small number justifies taking the step of creating a reduced rate currently. Our preferred option is the status quo – VLEV owners pay the full RUC rate. We will monitor any impacts on uptake – if there are any impacts on the growth of the market over the next 12 months, this may increase the justification for a reduced rate for VLEVs.

Legislative change will be necessary to implement the preferred option of a partial rate for PHEVs. No legislative action is necessary to implement the preferred option for VLEVs. The New Zealand Transport Agency will also need to collect odometer readings from all light EVs and issue RUC licences.

Limitations and Constraints on Analysis

The Government has indicated a preference to allow the RUC exemption for light EVs to expire on 31 March 2024. Therefore, the analysis in this document assumes that the exemption will expire and focuses on the implications of that, rather than providing analysis of options to extend the exemption.

Estimates of additional revenue received or revenue foregone are necessarily uncertain and based on modelling assumptions about uptake of light EVs.

There is limited information about the impact of the RUC exemption on light EV uptake. Information available suggests that purchase costs are more of a barrier to uptake than the potential need to pay RUC. EV running costs are also generally lower than petrol and diesel equivalents. Therefore, we have assumed that the impact of the options on EV uptake will be marginal.

It is difficult to accurately estimate additional costs for individuals because it is dependent on the ways individuals use their vehicles. Therefore, we have used averages.

We have very limited information on the demographic profile of light EV owners in New Zealand, which makes it very difficult to draw any accurate conclusions about impacts on different groups within the population.

Responsible Manager(s)

Carolina Durrant

Acting Manager Revenue

The Ministry of Transport

CCDurrant

15/12/2013

Quality Assurance

Reviewing Agency:	Ministry of Transport

Panel Assessment & Comment:	A Regulatory Impact Statement has been completed and is appended to this paper. It has been reviewed by the Ministry of Transport's internal review panel. The requirement for quality assurance of RISs has been suspended for decisions relating to 100 Day priorities taken within the 100 Days. However, the Ministry notes that due to the limited timeframe to assess impacts there are some gaps in the analysis. This is particularly around the growth in demand for PHEVs and VLEVs, the impacts of the preferred options on future uptake of ZEVs, and stakeholder views on the specific proposals. The impacts here will most likely be relatively small in the short-term due to the small number of PHEVs and VLEVs in the market. However, the paper notes that if we see growth in demand for these vehicles then further regulatory work will be required. We also note the Treasury requirement that there be a post-implementation review within a year of enactment, providing an opportunity to consider if further changes are needed.

Section 1: Diagnosing the policy problem

What is the context behind the policy problem and how is the status quo expected to develop?

1. Road user charges (RUC) is a major source of revenue for the maintenance and improvement of New Zealand's transport system. All heavy vehicles (with a gross vehicle mass of 3.5 tonnes or more) and all light vehicles that use a motive power other than petrol are subject to RUC. This currently applies to diesel vehicles.

2. Owners of vehicles subject to RUC are required to purchase and display licences from the New Zealand Transport Agency (NZTA) which acts as the RUC collector. RUC licences are purchased in 1000-kilometre increments. Rates vary widely between different classes of vehicles, depending on the size, weight, and number of axles. Generally, rates increase as vehicles get heavier because the system is designed to recover costs from vehicle owners in a manner proportionate to the damage different vehicles do to the road network. The current rate for light vehicles is $76 per 1000 kilometres.

3. While the definition of RUC vehicle includes electric vehicles (EVs), they have been exempt since 2009 to encourage people to purchase Evs. For light Evs, this exemption is scheduled to expire at the end of March 31, 2024. This means that light EV owners will be subject to RUC from 1 April 2024. The exemption was intended to remain in place until light Evs reach two percent of New Zealand's overall vehicle fleet

4. This will impose extra costs on owners of light EVs. Assuming that a light EV travels 11,000 kilometres per year (a rough estimate of average annual travel by light vehicles), this leads to an additional $836 in transport taxes per year. This does not create a fairness issue, because it brings light EV owners into line with what owners of other vehicles contribute to the upkeep and improvement of the transport system.

5. Allowing the exemption to expire does create an issue for owners of plug-in hybrid vehicles (PHEVs) who are currently covered by the RUC exemption, but are required to pay fuel excise duty (FED) on any petrol purchased. If the status quo is allowed to continue, then PHEV owners will be paying both FED and RUC from 1 April 2024. This

will mean higher costs and means that owners of PHEVs will be treated differently than all other light vehicles.

6. Once the exemption expires, there is an ability for PHEV owners to apply to NZTA for refunds of any FED paid. This refund process is manual and time-consuming because it requires vehicle owners to keep records of any fuel purchased and submit quarterly refund claims. Adding 21-25,000 PHEVs to the volume of claims received will require additional resources for NZTA (estimated at 6 additional staff members costing approximately $1 million over 18 months).

7. Owners of electric mopeds, motorcycles and other very light electric vehicles (VLEVs)[1] will be subject to the full light RUC rate from 1 April 2024. This is likely to impose considerably higher costs on electric variants than petrol equivalents which could have an impact on the market.

What is the policy problem or opportunity?

8. For PHEVs, the status quo represents a fairness issue – owners of these vehicles will be paying both of the major transport taxes and be subject to higher costs than all other light vehicles without any corresponding reason for this to occur. This could impact vehicle purchasing decisions and have a distortionary effect on the light vehicle market.

9. While there is an ability to apply for refunds of any FED paid, the process is manual, time-consuming, and open to fraud because it is difficult to determine the legitimacy of the claim.

10. For VLEV owners, there is also a potential fairness issue. Owners of VLEVs will be subject to higher costs than petrol equivalents which could have a distortionary effect o purchasing decisions. The issue is slightly different than for PHEVs, because VLEV owners will only be subject to one transport tax.

11. The scale of these problems is not expected to be large. Modelling suggests that there will be between 21-25,000 PHEVs in the fleet by April 2024, which represents well under one percent of the New Zealand light vehicle fleet (approximately four million vehicles). Additional costs will vary depending on how individuals use their vehicles and how far they travel, but it could be in the magnitude of several hundred dollars per year.

12. We estimate that there will be approximately 3000 VLEVs in the fleet by April 2024. As above, the exact cost for individuals will vary depending on how far they travel. It is possible that VLEV owners could face. We estimate that on average, petrol motorcycle owners pay approximately $35 in FED per 1000 kilometres travelled, so applying the standard light RUC rate would more than double costs.

13. We would expect that the scale of the problems associated with the status quo to grow over time, as the number of low and zero emissions vehicles increases.

[1] This is an umbrella term for various light electric vehicles weighing less than one tonne. It is not currently an official vehicle class.

Treaty of Waitangi considerations

14. The Crown has obligations under the Treaty of Waitangi relating to partnership, protection and equal treatment. Regarding transport, we understand that:

- Low-income households spend a higher proportion of total income on transport and Māori households tend to have lower incomes
- The three lowest-income quintile groups had negative gross savings compared to gross disposable income and final consumption expenditure and Māori are disproportionately represented in the three lowest quintiles.

15. Based on our current understanding of impacts for Māori, any additional costs for road users from this policy are likely to fall more heavily on Māori. We do note however, that light EVs tend to be more expensive to purchase than internal combustion engine vehicles meaning that low-income households are potentially less likely to own them.

What objectives are sought in relation to the policy problem?

16. Three objectives are sought:

   a. Ensure that all light EVs can be integrated into the RUC system in the lowest-cost way, both for users of the system and the regulator
   b. The costs imposed on different types of light EVs are fair and reasonable and are consistent with the central purpose of the Road User Charges Act 2012 (RUC Act) and system, that charges are in proportion to the costs that the vehicles generate.
   c. The integrity of the transport revenue system is maintained.

Section 2: Deciding upon an option to address the policy problem

What criteria will be used to compare options to the status quo?

17. The following criteria have been used to evaluate the options:

- **Ease of implementation** – how difficult and costly the option is to administer for NZTA.
- **Equitable** – the extent to which the costs imposed by the option are consistent with those imposed on owners of similar vehicles (horizontal equity)
- **Revenue implications** – the extent to which the option affects the amount of revenue collected from light EVs from 1 April 2024 onwards.

What scope will options be considered within?

18. As noted, the Government has indicated a preference to allow the light EV RUC exemption to expire on 31 March 2024. Therefore, the scope of options is limited to things that could be done within the RUC system rather than considering extending the exemption.

19. We have limited information about the demographic profile of EV owners in New Zealand, therefore it is difficult to draw any firm conclusions about how the additional costs of EVs being subject to RUC will impact different groups of the population.

20. Separate options are considered for the two policy problems set out in paragraphs 8-12 and are set out in two sections.

PHEVs: What options are being considered?

Option One – Status Quo

21. Under the status quo, PHEV owners will have to pay both FED & RUC, resulting in higher costs. Owners of PHEVs will have access to a refund process for any FED paid.

22. This option is likely the highest cost in terms of administering the system. NZTA will require additional resources to handle the increased volume of refund applications from 21,000-25,000 PHEV owners. NZTA has estimated that an additional six FTEs would be necessary, with a potential approximate cost of $1 million for 18 months.

23. This option is relatively fair, because it recognises that PHEV owners will be paying both taxes but enables them to access refunds for the FED paid. The ability to claim refunds means that PHEV owners will not face higher costs due to having to pay both taxes. This removes horizontal equity concerns that would otherwise have to be factored in and ensures that similar impacts on the road network across all light vehicles are reflected.

24. It does create a possible issue for the integrity of the transport revenue system because the refund system is open to fraud. It is difficult for NZTA to determine whether the refund claim is legitimate. For example, people who own a petrol vehicle and a PHEV could submit claims for petrol used in the ineligible vehicle.

25. While this risk is worth noting, we do not have any reliable data on the potential revenue loss and we consider it to be marginal in the overall context of NLTF revenue ($4 billion per year). It is also questionable whether many people would seek to submit fraudulent claims given the small amounts of money involved at an individual level.

Option Two – Require PHEV owners to pay FED & RUC

26. Under this option, the entitlement to claim refunds would be removed and PHEV owners would have to pay both FED & RUC.

27. This option performs well against Objective One would simplify administration and reduce administrative costs but would create a fairness issue, with PHEV owners incurring higher costs from needing to pay both FED & RUC. NZTA would not require additional staff to handle refunds, resulting in a potential saving of approximately $1 million over 18 months.

28. This option does not score well against Objective Two. It does not resolve the issue of PHEV owners having to pay both FED & RUC and creates a horizontal equity issue when comparing PHEV owners to owners of petrol, diesel, and electric equivalents. There is no compelling reason for this difference given that PHEVs have a similar impact on the road network as other light vehicles.

29. Table One below provides an indication of potential cost differences between PHEVs, petrol vehicles and electric/diesel vehicles subject to the standard RUC rate. It assumes a vehicle travelling 11,000 kilometres per year.

Vehicle type	Annual tax costs[2]
Light petrol vehicle (assuming consumption of 9/ 100 kilometres)	$797
Petrol hybrid vehicle (assuming consumption of 3.9L/100km	$345
Light diesel and light electric vehicle	$836
PHEV (assuming petrol consumption of 2.86L/100 kilometres)	$1,089 ($836 in RUC and $253 in FED)

30. This option scores well against Objective Three because it removes the ability of PHEV owners to apply for FED refunds, and therefore any risk of fraudulent claims.

Option Three - Amend the Road User Charges Act 2012 to establish a partial RUC rate

31. Under this option, the RUC Act would be amended to allow the setting of partial RUC rates. A partial rate would then be applied to PHEVs to reflect that they are also contributing to the costs of the transport system through FED. The entitlement to claim FED refunds would be removed.

32. Once the RUC Act has been amended, regulations would also need to be amended to implement the partial rate. We have concluded that the most effective way to calculate this rate is to calculate average FED costs per 1000 kilometres based on estimated petrol consumption.

33. There is a wide range of estimates in terms of the amount of petrol that PHEVs use, and it varies based on the use of each vehicle. Manufacturers generally claim lower petrol consumption based on tests done during vehicle development (often between one and two litres per 100 kilometres). Studies done in New Zealand and overseas in real-world conditions have suggested that petrol consumption per 100 kilometres is higher than these estimates.

34. We have assumed a petrol consumption number of roughly three litres per 100 kilometres, which we consider to be around the midpoint of real-world petrol consumption by PHEVs. Based on this, we consider that the partial RUC rate should be set at $53 per 1000 kilometres. This is set at the lower range of the expected amount of FED that an average PHEV would be expected to pay.

35. Those who consume more petrol are likely to be marginally worse off under this option because they will not be able to claim refunds. Those who consume less petrol and rely more on the electric motor will likely be marginally better off.

[2] Costs are GST inclusive.

36. This option scores well against Objective One – once the RUC Act has been amended it is relatively simple to create a new vehicle type and set a new rate. It also reduces costs for NZTA because refunds do not have to be issued to PHEV owners. Minor system changes would be needed to set up the new PHEV vehicle class in the NZTA system.

37. In terms of fairness, it removes the horizontal equity concerns that would be caused by Option Two because PHEV owners will not face considerably higher costs than similar petrol and diesel vehicles whilst having a broadly similar impact on the transport network. However, because of averaging it is marginally less fair than Option One where PHEV owners can claim refunds for all FED paid.

38. By removing the need for refunds, this option is likely to preserve the integrity of the transport revenue system because it removes the risks associated with the refund process.

Stakeholder feedback

39. In early 2022, the Ministry of Transport carried out a major consultation on the RUC system, with a range of proposals included. Over 100 submitters provided about 3,000 separate responses to the 89 questions posed in the discussion document. Most submissions were from the freight and trucking sectors, with some also coming from private individuals.

40. The RUC discussion document asked questions about the advantages and disadvantages of setting partial RUC rates to recognise FED paid by dual-fuel vehicles, the criteria to determine partial RUC rates and whether operators of dual-fuel vehicles with a reduced RUC rate should still be able to claim a full FED refund if they used more fuel than the average.

41. Many submitters opposed charging both RUC and FED, not realising the owners of dual-fuel vehicles would be entitled to a FED refund. But most submitters were also opposed to enabling partial rates for PHEVs. It is not always clear whether submitters appreciated that the purpose of the partial rate would be to ensure that PHEVs are not charged more overall than other vehicles only needing to pay one tax.

42. Some submitted that partial rates (whether for PHEVs or battery electric vehicles) could encourage EV use over public or active transport. Others also noted the possibility of perverse outcomes whereby the RUC rate is lower for a PHEV than for a battery electric vehicle.

PHEVs: Preferred option

43. Option Three is our preferred option. We consider putting a partial rate in place is the most effective choice because it significantly reduces any horizontal equity concerns and ensures that charges/taxes reflect the fact that all light vehicles have similar (minimal) effects on the road network.

PHEVs: How do the options compare to the status quo?

	Option One – Status Quo	Option Two – Require PHEV owners to pay FED & RUC	Option Three – Establish a partial RUC rate (Preferred)
Ease of implementation	0 – requires NZTA to administer refunds for PHEV owners which adds costs for additional staff to process refunds.	++ - removes the need for NZTA to administer refunds and therefore removes the need for NZTA to employ additional staff to process refunds.	++ - removes the need for NZTA to administer refunds and therefore removes the need for NZTA to employ additional staff to process refunds.
Equitable	0 – relatively equitable because the ability to apply for refunds for any FED paid means that PHEV owners will not face higher net costs than other vehicles.	- - - this option is not equitable. It means that PHEV owners will permanently be paying FED and RUC with no ability to claim refunds. This creates a horizontal equity issue	0 – in terms of horizontal equity, this option is very similar to the status quo because while PHEV owners will still have to pay both FED and RUC, they will not face notably higher costs than other similar vehicles while doing so. Some individuals will likely be marginally better off than under the status quo, some will be marginally worse off.
Revenue implications	0 – bringing light EVs into the RUC system from 1 April 2024 is expected to generate between $55 to $86 million in additional revenue over the first 12 months.	0 – there could be some marginal revenue loss resulting from improper or fraudulent claims but the likely small size of this means this option is not materially different than the status quo	0 – in terms of revenue take, this option is likely to be very similar to the status quo.
Overall assessment	0 – the status quo performs relatively well in terms of equity and revenue implications but is more expensive to administer.	0 – This option is likely to be cheaper and simpler to administer than the status quo but is significantly less equitable. At most we would expect marginal negative impacts on revenue.	+ - This option is similar to the status quo in terms of how equitable it is and the revenue implications. However, by removing the need for refunds, it makes the system cheaper and simpler to administer.

Key:	
++	much better than the status quo
+	better than the status quo
0	about the same as the status quo
-	worse than the status quo
- -	much worse than the status quo

Very light electric vehicles: What options are being considered

Option One – Status Quo

44. Under this option, very light electric vehicles will be subject to the full RUC rate of $76 per 1000 kilometres from 1 April 2024. We estimate that there will be approximately 3000 VLEVs in the fleet by 1 April 2024.

45. This option is simple to implement and administer but there are some complications in terms of getting VLEVs into the fleet. Some VLEVs are not fitted with distance recorders (odometers) which makes it difficult to estimate distance travelled and know when RUC licences should be purchased. We have limited information about how many of these vehicles there are in the fleet, but indications are that the number is small.

46. To address this, we could amend the RUC Act to provide the Minister of Transport with a power to exempt certain light vehicles where the Minister is satisfied that the administrative and compliance costs of collecting RUC would outweigh the revenue impacts of doing so, or where it is impractical to collect RUC (for example, if the vehicle is manufactured without an odometer). – we are noting this ability under the status quo, but providing for targeted exemptions is something that could also be done under Option Two.

47. This option is not equitable. It would mean owners of VLEVs face significantly higher costs than owners of equivalent petrol vehicles. VLEV owners would need to purchase RUC licences at a cost of $76 per 1000 kilometres. This compares to our estimates that the average petrol motorcycle owner pays approximately $35 in FED per 1000 kilometres travelled.

48. It is possible that this option could have follow on implications, including a reduction in purchases of zero-emission vehicles, with associated harm to New Zealand's transport emissions efforts. There may also be a negative public reaction to the perceived inequity.

49. While this creates a horizontal equity issue, it is worth noting that the light RUC rate is mostly made up of common costs (road signage, safety features, emergency response). Common costs account for approximately 80 percent of the light vehicle RUC rate, reflecting that vehicles weighing less than 3.5 tonnes generally do very little damage to the road network.

50. It is considered fair to allocate common costs equally to all vehicles. Therefore, most costs that VLEV owners will face under this option are for things that benefit them. Because FED is charged per litre of petrol purchased, it is not possible to reflect different costs in this way through the FED system.

51. As noted earlier, including all light EVs (including VLEVs) is expected to raise between $55 and $86 million in the first year following 1 April 2024. There are no detailed estimates of the amount of revenue that would be raised specifically from VLEVs.

Option Two – Put in place a reduced rate for VLEVs

52. Under this option, the RUC Act would be amended to put in place a reduced rate VLEVs. This reduced rate would likely be between $35-40 per 1000 kilometres, reflecting estimated petrol consumption rates for motorcycles.

53. We are referring to it as a reduced rate because it is based on a different principle than the partial rate:
    a. The partial rate reflects that PHEV owners are already contributing to the costs of the system through FED. Imposing higher costs by requiring PHEV owners to pay the full amount of both taxes is not fair or equitable.
    b. A reduced rate would be put in simply to recognise that VLEV owners would be paying more than petrol equivalents rather than trying to reconcile two different obligations. There are many cases of this across the system, because of the differences between the FED and RUC systems.

54. This option would be relatively simple to administer (noting the issues raised in paragraph 45) because the reduced rate would apply to all VLEVs. Minor system changes would be needed to add the new VLEV vehicle type to the NZTA system.

55. This option is considerably fairer and more equitable than the status quo. It means that costs for VLEVs would be broadly similar to the estimated fuel tax costs for equivalent petrol vehicles (around $30-35 per 1000 kilometres).

56. The Ministry of Transport uses a cost allocation model (CAM) to determine how costs should be allocated to different vehicle types, and the rates that vehicle owners should pay. While rates are not exactly aligned with the CAM, it is generally considered to be the best proxy that we have for ensuring that charges are proportional to costs generated by different vehicles.

57. Setting a reduced rate for VLEVs that creates consistency between electric and petrol vehicles will require setting aside the CAM, because most of the costs allocated to light vehicles are common costs. Therefore, the CAM would produce a rate that is broadly similar to the current light RUC rate.

58. Revenue is likely to be marginally lower under this option than the status quo because the RUC rate for VLEVs is reduced. Given the small size of the VLEV fleet (approximately 3000 vehicles) and that motorcycles/mopeds tend to travel fewer kilometres than other vehicles, we do not expect that any revenue loss would be significant.

Option Three – Exempt all VLEVs from RUC

59. Under this option, all VLEVs (any electric vehicle weighing less than one tonne) would be permanently exempted from the obligation to pay RUC. This would require an amendment to the RUC Act. As already noted, we estimate that there will be approximately 3000 of these vehicles in the fleet, mostly mopeds and motorcycles.

60. This option would likely be simple and relatively cheap to administer because the current situation would continue. VLEVs would remain exempted from RUC and no action would be required from NZTA. It would also remove any costs associated with attempting to collect RUC from vehicles that are not fitted with odometers.

61. This option is not fair, or particularly equitable. While VLEV owners do not cause damage to the road, they do use road infrastructure and would continue doing so

without paying any road tax, unlike petrol equivalents. We consider that a broad exemption is inconsistent with the purpose of the RUC system, whereby vehicle owners should contribute in proportion to the costs generated by their vehicles.

62. Because it involves exempting VLEVs entirely, this option would have the most negative impact on revenue. However, given the small number of vehicles any revenue loss is likely to be marginal.

Very light electric vehicles: Stakeholder feedback

63. The 2022 RUC discussion document asked questions about the advantages and disadvantages of subjecting road-registered VLEVs to RUC or a higher annual licence fee, and the principles we should use to determine a RUC rate for motorcycles or mopeds.

64. The submissions were mixed on charging RUC for VLEVs. Submitters opposed to bringing them into the RUC system cited the compliance burden involved (especially consider the minimal damage these vehicles impose on the roads) and the potential disincentive for uptake of these vehicles.

65. Other submitters proposed these vehicles should pay for road use through the annual licencing fee rather than through RUC. It was noted that the administrative cost of bringing these vehicles into the RUC system might outweigh the benefit to the NLTF.

Very light electric vehicles: Preferred option

66. The status quo is our preferred option. While we note that it scores poorly in terms of equity implications, we are concerned about the precedent that could be set by establishing a reduced rate. The inherent differences between the FED and RUC systems make it difficult to ensure exact parity across petrol, diesel and electric vehicles of similar weights or designs. There will always be some differences between similar vehicles using different fuels.

67. There is also no double taxation issue in this case. Higher costs for VLEVs are driven by a different charging methodology rather than because the owners are required to pay both FED and RUC. We are also concerned about the implications of setting aside the CAM to establish a reduced rate.

68. Finally, we are not convinced on the need for a reduced rate at this time. The market for VLEVs is currently very small (approximately 3000 expected in the fleet by 2024) and higher purchase prices/supply issues are also barriers to entry. We will monitor the effects of the status quo on uptake. There may be more of a case for a reduced rate in future as the VLEV fleet grows, or evidence develops that having to pay the full RUC rate is slowing or stalling the growth of the market.

Very light electric vehicles: How do the options compare to the status quo?

	Option One – Status Quo (Preferred)	Option Two – Establish a reduced RUC rate	Option Three – Permanently exempt VLEVs from RUC
Ease of implementation	0 – NZTA will need to begin collecting RUC from VLEVs. This could be challenging in some cases where an odometer has not been fitted or where the costs of collecting outweigh the benefits, but a targeted exemption power can be added to the RUC Act to manage issues as they emerge.	0 - NZTA will need to begin collecting RUC from VLEVs. This could be challenging in some cases where an odometer has not been fitted or where the costs of collecting outweigh the benefits, but a targeted exemption power can be added to the RUC Act to manage issues as they emerge.	++ - simplest to implement and administer. No action required from NZTA, although an amendment to the RUC Act would be necessary.
Equitable	0 – not equitable because it means that owners of VLEVs will be paying considerably more in transport taxes and charges than petrol equivalents based on equal amounts of use.	++ - establishing a reduced rate ensures a degree of horizontal equity. Owners of VLEVs and petrol equivalents would be contributing roughly the same amount of revenue per 1000 kilometres.	0 – this option is not equitable. VLEV owners will be permanently contributing less to the system that owners of equivalent petrol vehicles, which does not reflect that they use the transport system.
Revenue implications	0 – bringing light EVs into the RUC system from 1 April 2024 is expected to generate between $55 to $86 million in additional revenue over the first 12 months.	- - establishing a reduced RUC rate will result in some revenue loss compared to the status quo. This is expected to be marginal given the small number of VLEVs and the fact that they generally travel less distance.	- – will result in greatest revenue loss of the three options, but is likely to be marginal overall given the small number of VLEVs and the fact that the generally travel less distance.
Overall assessment	0 – has challenges both in terms of implementation and horizontal equity. Produces the best outcomes in terms of revenue because the full possible amount is being collected.	+ - This option is similar in terms of implementation complexity and costs to the status quo but is significantly more equitable. Will have a marginal negative impact on revenue.	+ – Similar to the status quo, this option is not equitable although in this case it is VLEV owners who receive the benefit. Simplest option to implement because there is no action required from NZTA. Largest negative impact on revenue but likely to be marginal overall.

Section 3: Delivering an option

How will the new arrangements be implemented?

69. Amendments to the Road User Charges Act 2012 will be needed to implement a partial rate for PHEVs, with associated changes to regulations to establish a new PHEV vehicle class and implement the partial rate. Amendments will need to be progressed under urgency to be in place by 1 April 2024.

70. For VLEVs, no legislative action is required to implement the preferred option.

71. The New Zealand Transport Agency will also need to collect odometer readings from all light EVs and issue RUC licences.

How will the new arrangements be monitored, evaluated, and reviewed?

72. The Ministry of Transport will monitor the effects of the preferred options on the light EV market and review in 12 months how effectively the system is working. If changes are needed to the rates, then this can be done through Order in Council.

73. The Ministry of Transport is also considering a broader review of the RUC system depending on Government direction. Any issues identified with the options set out in this RIS could also be considered through that work.

INTERNAL WORKING DOCUMENT ON OPTIONS FOR PLUG-IN HYBRID ELECTRIC VEHICLES, INCLUDING THE SETTING OF A PARTIAL ROAD USER CHARGES RATE FOLLOWING THE EXPIRY OF THE EXEMPTION

CONTEXT TO THIS DOCUMENT

This is a background internal document on options for applying road user charges to plug-in hybrid electric vehicles.

WORK TO DATE

The Ministry of Transport consulted, and received feedback, on options for applying RUC to plug-in hybrid electric vehicles in January 2022, including on the potential of a partial RUC rate and asked how the rate should be determined.

The discussion document *Driving Change* suggested an indicative partial rate could be set at **80 percent** of the standard light RUC rate in recognition that around twenty percent of the travel was by petrol. This would provide owners with a 20 percent discount on the standard light vehicle RUC rate. The overall sentiment from the consultation were mixed:

- of the 38 submissions on this proposal, 16 disagreed, 18 weighed the advantages and disadvantages about even, and four agreed with creating a partial rate for plug-in hybrid vehicles .
- many submitters opposed charging both RUC and FED, presumably not realising the owners would be entitled to a FED refund.
- most submitters were also opposed to enabling partial RUC rates for PHEVs. However, it was not always clear whether the submitters appreciated that the purpose of the partial rate would be to ensure that PHEVs are not charged more overall than light diesel vehicles.
- some submitted that partial rates (whether for PHEVs or battery electric vehicles) could encourage EV use over public or active transport. Others also noted the possibility of potential perverse outcomes if the RUC rate is lower for a PHEV than for a battery electric vehicle.

POLICY BACKGROUND

Since around 2009, electric vehicles have been exempt from the requirement to purchase and display a road user charges license. The temporary exemption was intended to encourage the uptake of electric vehicles, kick-start their adoption, and it was contemplated eventually, electric vehicles would be subject to road user charges (RUC). It was communicated, but not legislated, that the exemption would end when electric vehicles came close to comprising two percent of the light passenger vehicle fleet.

Paying road user charges would mean that electric vehicle owners contribute to the cost of funding the land transport system, like other road users.

As such vehicles run on electricity, which is not subject to any transport tax, electric vehicles would not contribute to the cost of upkeeping the transport network despite using the road in the absence of applying road user charges to electric vehicles. Electric vehicle owners not contributing posed:

- Fairness issues – owners of electric vehicles use the road, and benefit from land transport expenditure like other light vehicle owners.
- Revenue issues – as electric vehicle uptake increases, and electric vehicle displace or substitute for petrol powered vehicles, the funding stream for land transport would diminish.

Overall, given electric vehicle use the road, and benefit from the transport network like other road users, the reasons for electric vehicles not contributing funding were not compelling (as explained below)

SNAPSHOT OF ELECTRIC VEHICLES

An electric vehicle is classified as a vehicle powered wholly or partly from an external source of electricity.

There are around 103,000 light electric vehicles in New Zealand, made up of:

- Battery electric vehicles – 73,000
- Plug-in electric vehicles – 30,000

Electric vehicles make up just over 2 percent of the light passenger vehicle fleet.

Non-plug-in petrol hybrid vehicles are not electric vehicles, as the electricity used for motive power is generated internally (not from an external source, for instance, through ia a plug). There are around 250,000 petrol hybrid vehicles in New Zealand.

The Ministry of Transport Vehicle Fleet model anticipates the uptake of electric vehicles (particularly battery electric vehicles) to continue to occur even if electric vehicle are subject vehicles, especially due to improvements in battery technology and price of batteries continuing to fall.

Increases in the cost of petrol (due to increases in the cost of Emissions Trading Scheme Units) is anticipated to result in the uptake of battery electric vehicles.

A COMPLICATION RELATING TO DUAL FUELLED VEHICLES: PLUG IN HYBRID ELECTRIC VEHICLES

It is anticipated that battery electric vehicles will pay the light vehicle RUC rate, which is $76 per 1,000 kilometres.

However, some electric vehicles also have petrol engines and automatically or simultaneously draw on the petrol engine for their motive power. This means the vehicle owners will be 'double' paying/contributing if the full light vehicle RUC rate was applied to PHEVs. This would have a disproportionate cost impact and would disadvantage owners of PHEVs. For example. It would mean a PHEV owner travelling 11,000 kilometres would pay:

- RUC of $836 AND
- FED of $266 per year (assuming the PHEV consumes around 3 litres per 100 kilometres).

This would result in total a tax of around $1,102 per year (assumption that the PHEV vehicles paid the full light vehicle RUC rate and the owner was not entitled to claim back the FED component).

In comparison, a petrol vehicle with the average fuel efficiency of 8.1 litres per 100 km would pay $718 per year.

A petrol hybrid (a vehicle that does not plug in), for example, a Toyota Aqua, with a fuel consumption of 3.5 litres per 100 km would pay $310 and with a fuel consumption of 4.5 litres per 100 km would pay around $399 a year.

There are some petrol vehicles that pay more than PHEVs would pay, due to FED being based on vehicle fuel consumption/economy. For example, a typical older people mover will often have a fuel economy of around 14 litres per 100 km, which would incur around $1,240 per year in FED.

OPTIONS TO ADDRESS THE DOUBLE TAXATION ISSUE FACED BY OWNERS OF PLUG-IN HYBRIDS

There are a range of options to address the issue faced by owners of PHEVs. Some options are less desirable or viable, and all options have disadvantages.

PHEV owners claim FED refunds and pay the full light RUC rate

Under the current law, RUC vehicles that use petrol make refund claims to Waka Kotahi on a quarterly basis.

Claims are made by the owners for a refund of the petrol excise on fuel purchased for the vehicle. The refunds effectively mean the vehicles are not double-taxed (once the refund is provided).

Some RUC vehicle owners already make excise duty refund claims. The refunds are largely made by the owners of petrol-powered American vehicles that exceed the weight stipulation of light vehicles in New Zealand (3.5 tonnes) and are therefore subject to road user charges despite being powered by petrol.

The refund system means a road user faces the hassle of collecting and keeping their fuel receipts and making a paper refund claim to Waka Kotahi. A recent survey found that of PHEV owners surveyed, around 40 percent fill up with petrol at least once per week, so there will likely be a large number of refunds required.

Waka Kotahi faces the cost of receiving, checking, and paying the refund claim.

The claim process would also be susceptible to fraud, as it is difficult to ascertain whether the claim is for petrol that went into the RUC vehicle and not some other vehicle or machine. The same survey found that around 56 percent of PHEV owners surveyed also own a petrol vehicle, which could make it difficult to ensure that the petrol subject to the refund was used in a PHEV (and not in some other vehicle or machine).

Extending or permanently exempting PHEVs from RUC

Across the board, road users who utilise the roads contribute to the upkeep and improvement of our land transport system.

Exempting PHEVs would, in fact, be a practical extension of the status quo, whereas electric vehicles do not contribute. A different policy rationale would be needed to justify a permanent exemption, as, to date, it has been temporary to kick-start the uptake of EVs and was due to expire when uptake comprised 2 percent.

In principle, extending or entirely and permanently exempting PHEVs from RUC would be inconsistent with the decision to end the exemption .

The cost of entirely exempting PHEVs would likely be in the order of \$15–20 million per year, resulting in most PHEVs paying significantly less than battery EVs.

It would also likely be unfair, as other road users would be paying, and costs would need to be picked up by other road users.

This was the treatment of PHEVs in practice equivalent to non-plug in hybrids, benefiting from their relatively low fuel consumption. However, unlike with non-plug in hybrids, PHEVs that are used most efficiently (i.e. charged very frequently or with large batteries with no or very limited use of petrol), they could effectively avoid paying for their road use entirely.

Set a partial RUC rate for PHEVs

Another option, which would be consistent with the policy to end the exemption is to set a reduced or partial RUC rate to account for the tax contribution made by PHEVs through excise duty when they fill up at the pump.

A partial RUC rate for PHEVs could be set in several different ways, however some options may be viable or feasible than others.

1. ***Allow PHEV owners to nominate a RUC rate based on their petrol/battery usage***

   There are reports that some PHEV owners only use the vehicle's electric engine, whilst there are other reports some PHEV owners only use the vehicle's petrol engine.It is thought PHEVs that are 'company cars' may be more likely to be powered by petrol than electricity (as the user may be less willing to recharge the battery at home, adding to the household electricity bill) if the company pays the petrol bill.

   Given the potential variance in recharging practices of PHEV vehicles, an option would be to enable PHEV owners to 'nominate' based on how they use/recharge their vehicle. For example, a PHEV owner could submit their average fuel economy and pay a corresponding RUC rate. Those that rely predominately on the vehicle's battery would pay a higher rate than those that rely predominately on the vehicle's petrol engine.

A nomination system may create several issues and inconsistencies across the revenue system and shift us back towards a previous RUC system that enabled owners to nominate RUC rates/weights (pre-2012), which was becoming inefficient and increasingly susceptible to fraud.

People would be incentivised to claim that they never charge their vehicle and, therefore, deserve a very low RUC rate.

It would be very labour-intensive (and almost impossible) for the RUC collector to validate or check the claims (it would be difficult because RUC is purchased well before travel).

2. Use manufacturer's fuel consumption rating of PHEVs for setting a RUC rate

Basing the rate on the average fuel efficiency of PHEVs in the fleet could also be an option for setting a partial RUC rate. This would be based on the manufacturer's stated fuel efficiency of the vehicles.

PHEVs in New Zealand, according to the motor vehicle register, have an average manufacturer's stated fuel consumption/economy of 2 litres per 100 kilometres.

The table below provides a breakdown of PHEV manufacturer's stated fuel economy and the number of vehicles as recorded on the register.

PHEV fuel economy (L/100 kilometres)	Number of vehicles
0–2.15	20,699
2.15–4.3	8,500
4.3–6.45	106
6.45–8.6	43
Fuel economy not recorded	1,015

Manufacturer's ratings, in most cases, understate real-world fuel consumption.

The fleet average has been unchanged for the past ten years, although it has improved marginally (by around 0.1 litre/100 kilometres) in the past year.

In regards to PHEVs, the most important factor impacting how much a vehicle will pay is not the fuel consumption of the vehicle but how often the vehicle is recharged and the battery capacity of the vehicle, which can depend on how the car is driven. A vehicle that is driven very long distances may be unable to be regularly recharged and more rely on the petrol engine.

Using the average manufacturer's stated fuel efficiency would result in a partial RUC rate for PHEVs of around $60 per 1,000 kilometres.

3. Use the cost allocation model to determine a partial rate

The Ministry uses a cost allocation model (CAM) to inform the setting of RUC rates. The CAM is designed to determine rates that appropriately reflect the damage different types of vehicles do to the road network. It takes a variety of factors into account, including the gross vehicle mass of the vehicle, the amount of road space it takes up and the number of axles the vehicle has. It also includes a range of common costs, including costs for road signage and safety features. Common costs are allocated equally across all vehicles.

The CAM does not take fuel type into account, meaning it is not an effective tool for setting a partial rate. In addition, light vehicles do relatively little damage to the road network, meaning that most of $76 per 1000 kilometres light RUC rate is made up of common costs. For this reason, applying the CAM would generate a partial rate that is only marginally lower than $76 per 1000 kilometres, and would not meaningfully account for the contribution made through excise.

4. Setting a rate based on real world usage

We do not have any specific evidence for the actual average fuel consumption of PHEVs in New Zealand to draw from.

Calculation methodology for a partial rate

It is likely that regardless of the partial RUC rate chosen for PHEVs, there will be a wide range of impacts, as different rates will advantage and disadvantage different groups of users, depending on how each group uses, and how often they charge, their vehicle.

PHEV owners who seldomly recharge their vehicle and rely predominantly on petrol will likely pay more than the EV RUC rate, and people who charge frequently will pay less than the RUC rate.

Internationally, other jurisdictions have considered similar issues. However, without clear data, it is difficult to determine whether their assumptions are relevant in New Zealand.

- the Australian State of Victoria imposed a per kilometre charge for electric vehicles, which provided a 25 percent discount for PHEVs to the full per-kilometre rate which applied to battery electric vehicles.
- Iceland has proposed an EV RUC rate, with a 66 percent discount for PHEVs, but the basis or underlying policy justification for this level of discount is unclear.

What do we know about PHEVs in the New Zealand vehicle fleet?

- PHEVs in the fleet average around 2 litres per 100 kilometres based on manufacturer testing data.

- testing by Consumer NZ found PHEVs in the real world perform around 73 percent worse than in manufacturer tests. This was based on very basic study where new vehicles were used for a combination of short trips and long trips with regular charging. The exact methodology was:
  - "a week of commuting in rush hour from Lower Hutt to Consumer HQ (a round trip of 28km); a run to the supermarket; and a drive over the Remutaka Hill and back to see how it goes on a longer weekend trip".
- studies by the International Council on Clean Transportation found that real world fuel use and emissions from PHEVs can be three-to-five times higher than WLTP approval values and that PHEVs are only driven for 37 percent of their mileage using their electric motors.
- around 76 percent of PHEVs in New Zealand are registered to owners in large urban areas (around 76 percent). Vehicles in urban areas are more likely to do shorter trips and be more frequently charged than vehicles in rural areas.
- around 68 percent of New Zealand PHEVs are under five years old. The newer the vehicle, the less degraded the battery is likely to be, the more efficient the petrol engine, and the less likely it is to run predominantly on petrol. Therefore, it seems that the majority of the New Zealand PHEV fleet is relatively new and therefore should have batteries in a condition that enables a good fuel efficiency if regularly charged.

Given these factors, the Ministry considers that to achieve an average contribution from PHEVs that is similar to the rate for other light RUC vehicles is likely to require a discount for the PHEV rate of somewhere between 20–40 percent of the usual RUC rate.

This is based on applying an average electric motor utilisation of 37 percent to estimate the total PHEV kms driven on petrol, and with the total estimated litres of petrol used by PHEVs, we estimate an average fuel consumption of 2.86 litres per 100km.

This implies an average petrol excise intake of $23 per 1000 kms (including GST and rounded to be consistent with RUC rates), which suggests a partial RUC rate of $53 (a 30 percent discount).

This rate means a PHEV travelling 11,000 km per year would pay:

- FED of $253
- RUC of $583 ($53 per 1,000 would result in)

This would mean PHEV owners using petrol at the rate of 2.86 litres per 100km would pay $836 per year for 11,000 kilometres (a battery electric vehicle pays $836 in RUC, standard light vehicle RUC rate of $76 per 1,000 kilometres)

Implications of partial rate of $53 per 1,000 kilometres

There is a risk that PHEV owners will consider that they are being unfairly treated in comparison to non-plug-in hybrids. In the worst cases, a PHEV owner may pay double or triple what the owner of the most efficient hybrids pay. However, it is important to note that this is *a comparison to an anomaly* created by having a FED system that relies on fuel efficiency. It is fairer to compare it to the light RUC rate – so in these worst cases a PHEV owner may be 'overcharged' by around 20 percent.

In the worst case, a PHEV owner who seldomly recharges their vehicle and relies predominantly on petrol (doing around 7L/100km) will contribute to the National Land Transport Fund (NLTF) similarly to someone driving a people-mover does in FED (14L/100 kilometres contributes around $112 per 1,000 kilometres). However, because a PHEV still uses much less petrol, even in this case, their **total** costs across fuel and NLTF contributions are broadly in line with the average petrol vehicle.

Andrew de Montalk

From: Sam Harris
Sent: Wednesday, 6 December 2023 11:10 AM
To: Dominic Cowell-Smith
Cc: Carolina Durrant; Helen FionaWhite
Subject: RE: Draft Cabinet paper - ending light EV RUC exemption

Awesome, thanks Dom.

Will add that paragraph. I have also made a couple of very minor tweaks to the paper, just for clarity. We have also had confirmation that CIPA requirements do not apply and we are finalising the review of the RIS, so I will add those statements in and send you a final version tomorrow morning incorporating all of this plus anything that comes through from Ministerial consultation.

Just to provide a bit more context around why we do not recommend the reduced rate option:

Establishing a reduced rate for electric mopeds/motorcycles etc. requires us to essentially set aside the cost allocation model that we use to determine RUC rates. While not perfect, this model is the best thing we have for determining whether vehicle owners are contributing in proportion to the costs their vehicle generates, which is the purpose of the RUC Act and system. Most of the RUC costs attributable to vehicles under 3.5 tonnes is common costs allocated equally among all vehicles (for example, road signage, safety features etc) because light vehicles essentially do very little damage to the road network. This is not accurately reflected in the fuel excise duty rate, because it is not possible to do so within the context of the current approach to setting the fuel excise duty rate. However, owners of electric motorcycles/mopeds will be using all of these features when they travel on the network.

In the case of PHEVs, it is justifiable to set aside the CAM because those vehicle owners are also contributing to the system through fuel excise duty. Therefore, their costs overall will still reflect their use of the network and what the CAM says they should pay. In the case of electric mopeds/motorcycles etc, there is no equivalent justification for setting aside the CAM. The only justification is that they would be paying more (admittedly quite a bit more) than petrol equivalents.

The nature of our revenue system means there are quite a few of these inequities throughout the system. We are concerned that putting in a reduced rate for one group of vehicles will open up the system for challenges and disputes, and potentially undermine its integrity over time.

Thanks

Sam

Sam Harris
Senior Adviser, Major Projects
Te Manatū Waka Ministry of Transport
M: s 9(2)(a) [redacted] | E: s.harris@transport.govt.nz | transport.govt.nz

TE MANATŪ WAKA
Enabling New Zealanders to flourish

From: Dominic Cowell-Smith <Dominic.Cowell-Smith@parliament.govt.nz>
Sent: Wednesday, December 6, 2023 10:40 AM
To: Sam Harris <S.Harris@transport.govt.nz>
Cc: Carolina Durrant <C.Durrant@transport.govt.nz>
Subject: RE: Draft Cabinet paper - ending light EV RUC exemption

Hi Sam

The deadline for lodgement is 10am Thursday, Ministerial consultation closing COP today. If there is any feedback from Ministerial consultation I will send it through to you as soon as it comes, but will need a final paper as soon as possible Thurs morning.

I've also just had a chat with the Minister about the paper and overall he is very happy with it, but has requested one change – could we please add a paragraph to float a reduced RUC rate for VLEVs as an option, noting the recommendation remains as currently positioned?

Happy to discuss, cheers
Dom

Dominic Cowell-Smith
Private Secretary (Transport) | Office of Hon Simeon Brown
Minister of Transport | Minister for Auckland | Minister for Energy I Minister for Local Government

DDI: s 9(2)(a) | M: s 9(2)(a)
Email: dominic.cowell-smith@parliament.govt.nz Website: www.Beehive.govt.nz
Private Bag 18041, Parliament Buildings, Wellington 6160, New Zealand

From: Sam Harris <S.Harris@transport.govt.nz>
Sent: Wednesday, 6 December 2023 9:53 AM
To: Dominic Cowell-Smith <Dominic.Cowell-Smith@parliament.govt.nz>
Cc: Carolina Durrant <C.Durrant@transport.govt.nz>
Subject: RE: Draft Cabinet paper - ending light EV RUC exemption

Hi Dom

Just checking in on when papers have to be lodged?

Thanks

Sam

From: Dominic Cowell-Smith <Dominic.Cowell-Smith@parliament.govt.nz>
Sent: Tuesday, December 5, 2023 6:46 PM
To: Sam Harris <S.Harris@transport.govt.nz>
Cc: Carolina Durrant <C.Durrant@transport.govt.nz>
Subject: Re: Draft Cabinet paper - ending light EV RUC exemption

Hi both, just confirming this paper has gone out for Ministerial consultation tonight - will be in touch if we get any feedback. Hope you have a good evening!

Cheers
Dom

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From: Dominic Cowell-Smith
Sent: Tuesday, December 5, 2023 3:42:04 PM
To: Sam Harris <S.Harris@transport.govt.nz>
Cc: Carolina Durrant <C.Durrant@transport.govt.nz>
Subject: RE: Draft Cabinet paper - ending light EV RUC exemption

Great stuff, thank you Sam! Will discuss with the advisor and let you know if this info is to be added to the paper, but very good to have either way

Cheers
Dom

Dominic Cowell-Smith
Private Secretary (Transport) | Office of Hon Simeon Brown
Minister of Transport | Minister for Auckland | Minister for Energy I Minister for Local Government

DDI: s 9(2)(a) [redacted] | M: s 9(2)(a) [redacted]
Email: dominic.cowell-smith@parliament.govt.nz Website: www.Beehive.govt.nz
Private Bag 18041, Parliament Buildings, Wellington 6160, New Zealand

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From: Sam Harris <S.Harris@transport.govt.nz>
Sent: Tuesday, 5 December 2023 3:36 PM
To: Dominic Cowell-Smith <Dominic.Cowell-Smith@parliament.govt.nz>
Cc: Carolina Durrant <C.Durrant@transport.govt.nz>
Subject: RE: Draft Cabinet paper - ending light EV RUC exemption

Hi Dom

Just following up on the matter of costs for the RUC EV transition. NZTA has provided the following information. Please note that these are estimates at this time:

s 9(2)(f)(iv) [redacted]

NZTA is currently investigating the most effective way to fund these costs. s 9(2)(f)(iv) [redacted]

It is worth noting that putting a partial rate for PHEVs in place before 1 April 2024 would reduce the costs as there would no longer be a need to employ additional FTEs to handle refunds.

s 9(2)(f)(iv) [redacted]

None of this information is currently reflected in the Cabinet paper, but let us know if you would like us to add it.

Thanks

Sam

Sam Harris
Senior Adviser, Major Projects
Te Manatū Waka Ministry of Transport
M: s 9(2)(a) [redacted] | E: s.harris@transport.govt.nz | transport.govt.nz

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From: Dominic Cowell-Smith <Dominic.Cowell-Smith@parliament.govt.nz>
Sent: Tuesday, December 5, 2023 1:05 PM
To: Sam Harris <S.Harris@transport.govt.nz>
Cc: Carolina Durrant <C.Durrant@transport.govt.nz>
Subject: RE: Draft Cabinet paper - ending light EV RUC exemption

Many thanks Sam, appreciate the quick turnaround!

[redacted]

Dominic Cowell-Smith
Private Secretary (Transport) | Office of Hon Simeon Brown
Minister of Transport | Minister for Auckland | Minister for Energy I Minister for Local Government

DDI: s 9(2)(a) [redacted] | M: s 9(2)(a) [redacted]
Email: dominic.cowell-smith@parliament.govt.nz Website: www.Beehive.govt.nz
Private Bag 18041, Parliament Buildings, Wellington 6160, New Zealand

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From: Sam Harris <S.Harris@transport.govt.nz>
Sent: Tuesday, 5 December 2023 12:12 PM
To: Dominic Cowell-Smith <Dominic.Cowell-Smith@parliament.govt.nz>
Cc: Carolina Durrant <C.Durrant@transport.govt.nz>
Subject: RE: Draft Cabinet paper - ending light EV RUC exemption

Hi Dom

We have made the requested changes to the Cabinet paper including amending the Government priorities section and making clear that additional revenue is modelled over a period of 12 months after the exemption expires.

We are following up with NZTA on the costs question.

Thanks

Sam

Sam Harris
Senior Adviser, Major Projects
M: s 9(2)(a) [redacted] | E: s.harris@transport.govt.nz | transport.govt.nz

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From: Sam Harris
Sent: Tuesday, December 5, 2023 10:17 AM
To: Helen FionaWhite <helen.fionawhite@parliament.govt.nz>; Dominic Cowell-Smith <Dominic.Cowell-Smith@parliament.govt.nz>
Cc: David Wood <d.wood@transport.govt.nz>; Carolina Durrant <C.Durrant@transport.govt.nz>; Tony Frost (Parliament) <Tony.Frost@parliament.govt.nz>; Chris Roblett <c.roblett@transport.govt.nz>; Aimee Bell <A.Bell@transport.govt.nz>
Subject: RE: Draft Cabinet paper - ending light EV RUC exemption

Apologies, I noticed a small inconsistency in the previous version of the paper. I have fixed it in the attached.

Thanks

Sam

Sam Harris
Senior Adviser, Major Projects
Te Manatū Waka Ministry of Transport
M: s 9(2)(a) [redacted] | E: s.harris@transport.govt.nz | transport.govt.nz

TE MANATŪ WAKA

From: Sam Harris
Sent: Tuesday, December 5, 2023 10:10 AM
To: Helen FionaWhite <helen.fionawhite@parliament.govt.nz>; Dominic Cowell-Smith <Dominic.Cowell-Smith@parliament.govt.nz>
Cc: David Wood <d.wood@transport.govt.nz>; Carolina Durrant <C.Durrant@transport.govt.nz>; Tony Frost (Parliament) <Tony.Frost@parliament.govt.nz>; Chris Roblett <c.roblett@transport.govt.nz>; Aimee Bell <A.Bell@transport.govt.nz>
Subject: Draft Cabinet paper - ending light EV RUC exemption

Hi Helen and Dom

Please find attached a draft Cabinet paper on legislative changes to prepare for the end of the light EV RUC exemption on 31 March 2024 for the Minister's review and comment.

NZTA has provided feedback on the paper. Nobody other external agencies have been consulted at this stage.

I am happy to discuss or answer any questions.

Thanks

Sam

Sam Harris
Senior Adviser, Major Projects
Te Manatū Waka Ministry of Transport
M: s 9(2)(a) [redacted] | E: s.harris@transport.govt.nz | transport.govt.nz

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MINISTRY OF TRANSPORT

Wellington (Head Office) | Ground Floor, 3 Queens Wharf | PO Box 3175 | Wellington 6011 | NEW ZEALAND | Tel: +64 4 439 9000 |

Auckland | NZ Government Auckland Policy Office | 45 Queen Street | PO Box 106238 | Auckland City | Auckland 1143 | NEW ZEALAND | Tel: +64 4 439 9000 |

Duplicate

[redacted]

From: Sam Harris
Sent: Tuesday, December 5, 2023 10:17 AM
To: Helen FionaWhite <helen.fionawhite@parliament.govt.nz>; Dominic Cowell-Smith <Dominic.Cowell-Smith@parliament.govt.nz>
Cc: David Wood <d.wood@transport.govt.nz>; Carolina Durrant <C.Durrant@transport.govt.nz>; Tony Frost (Parliament) <Tony.Frost@parliament.govt.nz>; Chris Roblett <c.roblett@transport.govt.nz>; Aimee Bell <A.Bell@transport.govt.nz>
Subject: RE: Draft Cabinet paper - ending light EV RUC exemption

Apologies, I noticed a small inconsistency in the previous version of the paper. I have fixed it in the attached.

Thanks

Sam

Sam Harris
Senior Adviser, Major Projects
Te Manatū Waka Ministry of Transport
M: s 9(2)(a) [redacted] | E: s.harris@transport.govt.nz | transport.govt.nz

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From: Sam Harris
Sent: Tuesday, December 5, 2023 10:10 AM
To: Helen FionaWhite <helen.fionawhite@parliament.govt.nz>; Dominic Cowell-Smith <Dominic.Cowell-Smith@parliament.govt.nz>
Cc: David Wood <d.wood@transport.govt.nz>; Carolina Durrant <C.Durrant@transport.govt.nz>; Tony Frost (Parliament) <Tony.Frost@parliament.govt.nz>; Chris Roblett <c.roblett@transport.govt.nz>; Aimee Bell <A.Bell@transport.govt.nz>
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I am happy to discuss or answer any questions.

Thanks

Sam

Sam Harris
Senior Adviser, Major Projects
Te Manatū Waka Ministry of Transport
M: s 9(2)(a) [redacted] | E: s.harris@transport.govt.nz | transport.govt.nz

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MINISTRY OF TRANSPORT

Wellington (Head Office) | Ground Floor, 3 Queens Wharf | PO Box 3175 | Wellington 6011 | NEW ZEALAND | Tel: +64 4 439 9000 |

Auckland | NZ Government Auckland Policy Office | 45 Queen Street | PO Box 106238 | Auckland City | Auckland 1143 | NEW ZEALAND | Tel: +64 4 439 9000 |

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Andrew de Montalk

From: Andrew de Montalk
Sent: Thursday, 25 January 2024 10:45 AM
To: Helen FionaWhite
Cc: Matthew Skinner; Carolina Durrant; David Wood
Subject: RE: EV RUC additional information needed this week

Hi Helen and Dom,

Below is some additional information on the proposed partial RUC rate for owners of PHEVs.

Let us know if you require any additional information.

Cheers, Andrew

Additional background information on the proposed PHEV RUC rate

The proposed partial PHEV rate of $53 per 1,000 kilometres is based on an estimated petrol consumption of 2.86 litres per 100 kilometres). The following factors informed the setting of the partial RUC rate for PHEVs:

- PHEVs in the fleet average around 2 litres/100 kilometres based on manufacturer testing data
- testing by Consumer NZ found PHEVs in the real world perform around 73 percent worse than in manufacturer tests; this is based on new vehicles doing a mix of short and long trips with regular charging
- around 76 percent of PHEVs in New Zealand are registered to owners in large urban areas (around 76 percent). Vehicles in urban areas are better suited to shorter trips and more frequent charging
- around 68 percent of New Zealand PHEVs are under five years old. The newer the vehicle, the less degraded the battery is likely to be, the more efficient the petrol engine, and the less likely it is to run predominantly on petrol.

2.86 litres is likely in the middle of the real-world petrol consumption rate of PHEVs in New Zealand. The proposed partial RUC rate provides PHEV owners with a 30 percent discount on the full light RUC rate.

Regardless of the partial RUC rate chosen for PHEVs, different rates will advantage and disadvantage different groups of users, depending on how each group uses, and how often they charge, their vehicle. PHEV owners who seldomly recharge their vehicle and rely predominantly on petrol will contribute to the National Land Transport Fund (NLTF) similarly to someone driving a people-mover does in FED (14L/100 kilometres contributes around $112 per 1,000 kilometres). However, because a PHEV still uses much less petrol, even in this case, their **total costs** across fuel and NLTF contributions are broadly in line with the average petrol vehicle. When most people consider costs, they typically consider total costs rather than component costs.

The Australian State of Victoria imposed a per kilometre charge for electric vehicles, which provided a 25 percent discount for PHEVs to the full per-kilometre rate which applied to battery electric vehicles. The proposed discount for PHEVs in New Zealand is more generous than that provided in Victoria.

Potential alternative approaches

Below are some alternatives that could be considered; however, some are less than viable, and all have disadvantages.

Basing the rate on average fuel efficiency of PHEVs in the fleet is unlikely to resolve concerns

PHEVs in New Zealand, according to the motor vehicle register, have an average manufacturer's stated fuel economy of 2 litres/100 kilometres. The table below provides a breakdown of PHEV manufacturer's stated fuel economy and number of vehicles in New Zealand recorded on the register.

PHEV fuel economy (L/100 kilometres)	Number of vehicles in the fleet
0–2.15	20,699
2.15–4.3	8,500
4.3–6.45	106
6.45–8.6	43
Fuel economy not recorded	1,015

Manufacturer's ratings, in most cases, understate real-world fuel consumption. The fleet average has been unchanged for the past ten years, although it has improved marginally (by around 0.1 litre/100 kilometres) in the past year.

The factor that determines or materially impacts how much an owner pays is not the fuel consumption rating but how often the vehicle is recharged, that largely depends on how the car is driven.

Using the average manufacturer's stated fuel efficiency would result in a higher partial RUC rate for PHEVs (around $60 per 1,000 kilometres), so would likely exacerbate the concerns.

Allowing PHEV owners to nominate a rate based on usage would create issues

An alternative approach would be to enable PHEV owners to 'nominate' how they use their vehicles. For example, a PHEV owner could submit their average fuel economy and pay a corresponding RUC rate.

This may create several issues and inconsistencies across the revenue system and shift us back towards a previous RUC system, that enabled owners to nominate RUC rates/weights (pre-2012), which was becoming less efficient and increasingly susceptible to fraud.

People would be incentivised to claim that they never charge their vehicle and, therefore, deserve a very low RUC rate. It would be very labour-intensive (and almost impossible) for the RUC collector to validate or check the claims (it would be difficult because RUC is purchased well before travel).

Applying the full light RUC rate to PHEVs and providing FED refunds would be burdensome

A potential option is to apply the full RUC rate ($76 per 1,000 kilometres) to PHEVs while allowing owners to claim FED refunds from Waka Kotahi. This would be expensive to administer and could be time-consuming for PHEV owners. The FED refund system is also susceptible to fraud. There would be limited avenues to prevent people from claiming refunds for FED paid on petrol used in a non-PHEV, and a recent survey identified that 56 percent of PHEV owners also own a petrol vehicle.

Exempting PHEVs from RUC would be unfair

We did not advise on entirely exempting PHEVs from RUC, as it is inconsistent with the decision to end the exemption from RUC for vehicles powered by an external source of electricity. The cost of entirely exempting PHEVs would likely be in the order of $15–20 million per year, resulting in most PHEVs paying significantly less than battery EVs. It would also likely be unfair (as other road users pay).

The proposed partial RUC rate for PHEVs in the context of our revenue system and the amounts other roads users contribute

There are disparities in our revenue system (some more significant than the one for PHEVs) that affect hundreds of thousands of vehicles, and setting an *additional* discount for PHEVs may risk setting a precedent and would have revenue implications. If changes were made to the PHEV rate (either increasing or decreasing it), each $1 increase or decrease would change RUC revenue by around $400,000 annually.

The main issue in concerns from members of the public is people with PHEVs comparing how much they are paying towards the NLTF relative to what they would pay from operating a conventional hybrid vehicle (i.e., those that are not charged by an external source of electricity).

Ultimately, these issues result from having two different charging systems. The FED system already creates several discrepancies relating to the charges people face. Setting a lower rate for PHEVs may raise questions about the fair amounts for these and other vehicle owners to pay. For example:

- petrol hybrid vehicles are currently significantly underpaying NLTF charges. There are about 250,000 vehicles listed as "Petrol Hybrid" on the motor vehicle register, with an average (manufacturer-stated) fuel economy of 4.4L/100 kilometres

- many petrol vehicles are currently significantly overpaying NLTF charges. There are about 440,000 light petrol vehicles, which have a manufacturer-tested fuel economy of around 11L/100 kilometres or more.

Latest communication from stakeholders

We understand that NZTA has been approached by stakeholders about reclassifying some PHEVs as petrol hybrids. To do this under the legislation the external charging port on the vehicle would need to be removed or somehow disabled. This may provide a solution to those who are unable to regularly charge and travel predominately on petrol. The vehicles would no longer be subject to RUC and would contribute solely through FED.

From: Helen FionaWhite <Helen.FionaWhite@parliament.govt.nz>
Sent: Tuesday, January 23, 2024 8:29 AM
To: Matthew Skinner <m.skinner@transport.govt.nz>
Cc: David Wood <D.Wood@transport.govt.nz>; Carolina Durrant <C.Durrant@transport.govt.nz>
Subject: EV RUC additional information needed this week

Hi Matt

Needing the following additional advice this week. I will call you to discuss timeframes and what might be possible.

Following the recent announcement, the Minister has received considerable feedback and wishes to test the underpinning assumptions.

Can the Ministry please provide additional information on the premise of the suggested RUC rate for plug-in hybrids (which is currently based on average fuel efficiency). Would it be more effective to base it on the average fuel efficiency of vehicle imports over the past seven years? Can you please provide additional insight into how the current proposed rate was determined. What other options did officials consider?

Would it be possible to implement a variable RUC rate for PHEVs? For example - The rate could be the standard EV RUC rate minus the specific vehicle's fuel efficiency, etc.

I will call shortly to discuss

Cheers
Helen
