



Drive Electric Submission: Consultation on 2024/2025 energy levies funding proposal and related work programme

9 October 2024

Introduction

Drive Electric is an apolitical, not-for-profit organisation. We engage with government, media, industry and individuals to continually promote the benefits of making e-mobility mainstream and encourage accelerated electric vehicle uptake across the country. Our board, member network and research partners are at the forefront of the electric vehicle movement. We are proud to instigate change and impart expertise in the key conversations bringing New Zealand closer to a fully electric future.

Drive Electric represents a member base comprising new car OEMs and retailers, used car importers and distributors, infrastructure organisations (electricity generators, distributors and retailers, electric vehicle service equipment suppliers), e-bike/scooters, heavy vehicle importers, finance, fleet leasing and insurance companies, along with electric vehicle users. We have more than 70 members from across the e-mobility ecosystem.

Interest

We are submitting on the proposed vehicle classification for plug-in hybrids (PHEVs) and battery electric vehicles (BEVs), outlined in your consultation document:

ACC previously used a light electric vehicle classification for plug-in hybrids and battery electric vehicles, which discounted levies for electric vehicles alongside other Government incentives. The ACC Minister proposes from 1 July 2025 removing that class and removing the discount.

Our core concern is that the proposed levy calculations are not equitable across motive types, resulting in a disadvantage for Battery Electric Vehicles (BEVs). This distinction does not relate to the safety or risk profile of the vehicles, instead it arises from a fuel efficiency distortion.

A secondary issue is this change would compound previous policy choices, particularly the level at which RUCs were introduced on BEVs, which could further damage the BEV market.

Recommendations

1. We don't support the proposal to remove the current classification of light electric vehicles from the Motor Vehicle account, as the proposed calculations are not equitable and result in a negative impact on BEVs, under modelled scenarios.

2. If the Government decides to proceed with removing the current classification, we strongly recommend that a more sophisticated approach to calculating levies is adopted that takes into account actual safety risk of vehicles and removes the fuel-efficiency distortion.
3. As an alternative, the levy could be raised on a per vehicle basis (with no petrol component). This has precedence in the Government's intent to move to a universal Road User Charges system.

Response

Consultation question 1. Do you support the ACC Minister's proposals to remove the current classification of light electric vehicles from the Motor Vehicle account?

Drive Electric does not support the proposal.

The proposed levy calculations are likely to favour drivers of efficient petrol vehicles, petrol hybrid vehicles and petrol PHEVs compared to those driving BEVs and diesel PHEVs, under our modelled scenarios.

This is because the calculation of the proposed levies use different methodologies for different motive types, which are subject to a fuel efficiency distortion. Petrol vehicle levies are being partly calculated by distance (and collected through petrol), which is impacted by fuel efficiency. BEVs and Diesel vehicles are paying flat levy rates.

When applied levy rates are compared using assumptions for average kilometres driven and fuel efficiency, a perverse outcome arises where efficient petrol vehicles are receiving a discount on the total levy relative to BEVs and diesel vehicles. This differential has nothing to do with vehicle safety or crash risk.

Removing the current classifications of light EVs in the proposed manner is going to introduce an inequity

The levy calculations depend on making assumptions about the average number of kilometres being driven by New Zealanders and the fuel efficiency of those vehicles. Assumptions must also be made about driver behaviour when it comes to the use of petrol PHEVs and diesel PHEVs (given that drivers can drive on battery or a fossil fuel.) The consultation documents do not reveal these assumptions.

Using the information provided we have run scenarios, assuming that the average driver of a light passenger vehicle is driving 10,000 km per year.¹ We have run these calculations using low average fuel efficiency numbers and high average fuel efficiency numbers for each category of motive power to create a range, given the variability at play. Our intent is to show the direction of the likely impact of the levy calculations as proposed.

¹ We used the Ministry of Transport's [annual fleet statistics](#) (2022). This shows that LPVs drove 33.2b kilometres (VKT) by 3.45m LPVs. This averages to 9,600 average kilometres per LPV. We have rounded up to 10,000km.

The analysis below demonstrates the variance of the total levies being paid by motive types relative to BEVs (and diesel PHEVs), when real world variables for distance and fuel efficiency are modelled.

*Table 1: Variance to BEV - lower average fuel efficiency
Assuming 10,000 km driven per year*

Vehicle Type	Fuel efficiency / 100km	Current			Proposed			Variance to BEV
		Fixed	Per litre	Total	Fixed	Per litre	Total	
BEV	0	\$42.09		\$42.09	\$109.06		\$109.06	\$0.00
Diesel powered PHEV	3.0	\$42.09		\$42.09	\$109.06		\$109.06	\$0.00
Petrol powered PHEV	3.0	\$42.09	\$0.06	\$60.09	\$51.00	\$0.06	\$69.00	-\$40.06
Petrol powered car	7.0	\$42.09	\$0.06	\$84.09	\$51.00	\$0.06	\$93.00	-\$16.06
Petrol Hybrid car	3.5	\$42.09	\$0.06	\$63.09	\$51.00	\$0.06	\$72.00	-\$37.06
Diesel driven car	6.0	\$101.07		\$101.07	\$109.06		\$109.06	\$0.00

*Table 2: Variance to BEV - higher average fuel efficiency
Assuming 10,000 km driven per year*

Vehicle Type	Fuel efficiency / 100km	Current			Proposed			Variance to BEV
		Fixed	Per litre	Total	Fixed	Per litre	Total	
BEV	0	\$42.09		\$42.09	\$109.06		\$109.06	\$0.00
Diesel powered PHEV	6.0	\$42.09		\$42.09	\$109.06		\$109.06	\$0.00
Petrol powered PHEV	6.0	\$42.09	\$0.06	\$78.09	\$51.00	\$0.06	\$87.00	-\$22.06
Petrol powered car	10.0	\$42.09	\$0.06	\$102.09	\$51.00	\$0.06	\$111.00	\$1.94
Petrol Hybrid car	6.0	\$42.09	\$0.06	\$78.09	\$51.00	\$0.06	\$87.00	-\$22.06
Diesel driven car	9.0	\$101.07		\$101.07	\$109.06		\$109.06	\$0.00

The tables above show that, given their enhanced fuel efficiency and the distance calculation applied, petrol PHEV drivers, petrol hybrid vehicle drivers and efficient petrol car drivers are

likely to pay much lower total levies, by using petrol as a basis for distance, compared to BEVs paying a flat rate levy (and diesel vehicles).

The variance between BEVs and petrol PHEVs and petrol hybrids exists under both low average efficiency and high average fuel efficiency scenarios. This variance also occurs at much higher levels of kilometres travelled (e.g 15,000).

To illustrate the above point another way, under ACC's proposal, EVs will pay the same total levy (\$109.60) as a petrol car that consumes 967 litres of petrol per year. A 4.5 L/100 km petrol vehicle would have to drive 21,489 km to pay the same total levy \$109.60 as a BEV (regardless of the kilometres driven). This is considerably higher than the average kilometres driven per year, and does not take into account any safety difference between the two cars.

Instead of removing an 'incentive' for diesel PHEVs and BEVs and applying an ACC levy based on risk, this proposal will penalise many drivers of diesel PHEVs and BEVs, which are on average newer and safer cars than the entire fleet. This would be a perverse outcome and undermine confidence in the ACC levy system.

Petrol hybrids comprise a large portion of the light vehicle fleet, so this inequity is significant

The rates being imposed on BEVs relative to petrol hybrids is significant as petrol hybrids comprise 6.5% of the fleet, whereas PHEVs only comprise 0.7% (predominantly these are petrol PHEVs).

It appears this approach is also going to negatively impact the share of total levies collected by the ACC from petrol hybrids.

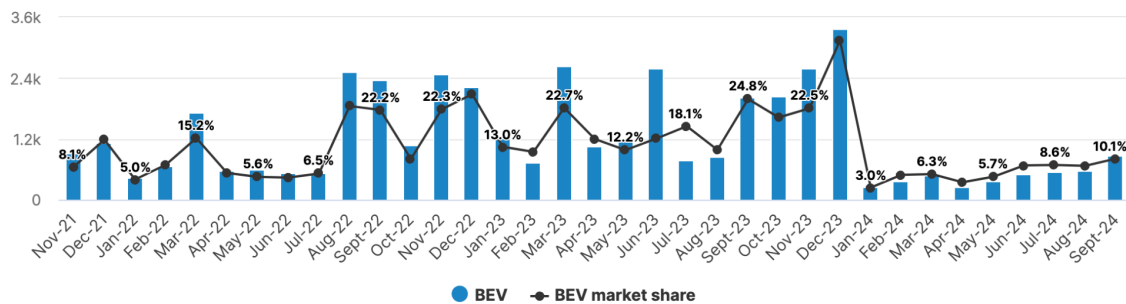
This perverse incentive is exacerbated by the fact most EVs are new vehicles, and therefore safer

As EVs are newer technology, they are newer cars compared to the average fleet. They are therefore safer on average. We explore this further in question 2 below. This safety consideration reinforces the finding that it is unfair for BEV drivers to pay higher levies than many types of older petrol vehicles. This cannot be justified on crash risk grounds.

The consultation document says this proposal will have no effect on EV uptake. We disagree. It will have a compounding effect on recent policy decisions.

This proposal as presented is that it is the third policy choice by the Government that negatively affects the uptake of BEVs. This will follow the removal of the Clean Car Discount in December 2023 and the introduction of Road User Charges (RUCs) in April 2024. BEV sales have fallen considerably in 2024 (down 70% year to August).

Monthly NZ electric car registrations and market share



Source: Ministry of Transport / evdb.nz

The timing of this proposed ACC change is a concern, given the market has not yet recovered from the disruption caused by recent policy decisions taken by the Government. The ACC proposal will add to a negative market signal about the importance of electric vehicles.

The downturn in BEV sales is unfortunate, given the benefits of electric vehicles to consumers and the country:

- Consumers save money on running costs
- The economy saves money on imported fossil fuels
- EVs contribute to lowering air pollution (a health impact)² and carbon emissions

For more information on benefits of EVs see the Drive Electric State of the Nation report (pp 7-9).³

This proposal replicates the inequity that exists in the way RUCs have been imposed on BEVs

The introduction of RUCs is particularly pertinent to this particular policy choice. RUCs have been introduced on BEVs and PHEVs from 1 April 2024. Petrol vehicles (including petrol hybrids) continue to pay Fuel Excise Duty (FED).

The application has meant that in practice BEVs pay the same RUC rate as a diesel vehicle (\$76 / 1000km). Calculations by the Motor Industry Association (MIA) show this is higher than the rate of FED being paid by equivalent petrol cars (\$61.7 / 1000km), PHEVs (\$51.6 / 1000km) and petrol hybrids (\$39 / 1000km).⁴

² The point on air pollution is particularly relevant. While the ACC levy is to fund recovery from road accidents, it's worth noting that the health impacts resulting from air pollution present social costs to the economy of \$10.5b. (We are not suggesting air pollution triggers ACC cover, but are pointing out that this is a significant health impact for the broader health system.)

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<https://driveelectric.org.nz/wp-content/uploads/2023/09/Drive-Electric-State-of-the-Nation-Report-2023.pdf>

⁴ See Appendix A for the figures from the Motor Industry Association (MIA)

This is again down to the challenge of using petrol as a proxy for distance, when petrol cars have vastly different fuel efficiencies. Before this decision was made, all motor vehicle industry groups united for the first time to point out this inequity to the Select Committee.⁵

Both RUCs and the proposed ACC levy calculations are subject to a fuel-efficiency distortion. When combined they become a built-in penalty on BEVs, under average use circumstances.

Consultation question 2. Do you support the ACC Minister's proposals to charge vehicle owners the same levy if they are exposed to the same level of risk?

We support this principle, but this proposal does not deliver on this principle.

As we evidence above, the application of levies is being done in a way that favours petrol PHEVs, petrol hybrids and efficient petrol cars. This difference in the levies being applied is not due to risk, it is due to different levels of fuel efficiency for different petrol vehicles and the distance calculation being applied.

This discrepancy is compounded given BEVs are likely to be newer vehicles. In August 2024, there were 77,000 BEVs in the New Zealand fleet. This has grown more than five times since the end of 2019, where the number was 14,000. As such, the vast majority of BEVs (63,000) have been added to the fleet in the last four years; they are new vehicles. To the best of our knowledge, all new BEVs (LPVs) are achieving 4 or 5 star ANCAP safety ratings.

If a risk lens was applied, then BEVs are going to be considerably safer, on average, than the average petrol and petrol hybrid fleet, based on age. The average age of the light vehicle fleet is 14-15 years old.

To illustrate this point, if we assume two drivers drive 12,000km, one owns a brand new 2024 BEVs with 4-5 star safety rating, and the other a 15-year old petrol hybrid with a 1-3 safety rating. The owner of the petrol hybrid will be paying a lower total ACC levy, than the owner of a BEV. This is not justified under the risk principle.

We understand that a previous Government reversed ACC's levy systems that recognised that newer vehicles with better passive safety features should be charged less than older vehicles with less safety features. Not considering vehicle age and its safety features is incongruous with a principle "to charge vehicle owners the same levy if they are exposed to the same level of risk".

The consultation documents says that, "ACC has no data to determine whether low-emission vehicles are safer or riskier than petrol vehicles." We understand this to mean sufficient crash data (given the relatively recent arrivals of EVs), rather than safety rating information - which is available (and covered above). It seems implausible that the ACC isn't able to work

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https://www.parliament.nz/resource/en-NZ/54SCTIN_EVI_60f18385-f31e-4c3e-1dba-08dc38a90c66_TIN815/6f680f9cd58b117c963f8d0b08fc19496c1dd28b

with car companies, NZTA, and insurance firms to arrive at a sufficient model for determining the safety of BEVs relative to other vehicle types. We are aware, for example, that Tesla has provided safety information in their submission.

Regardless, the absence of this crash data should NOT result in the decision to charge BEVs higher levies, in practice, than other low emissions vehicles (petrol PHEVs and hybrids). Especially, when what data is available suggests that BEVs are safer on average than the entire petrol fleet.

Appendix: Equivalent RUC and Fuel Tax rates

Average Road Tax Costs per 1000 km by Motive Power

Based on the Top 30 New Models Registered in 2023 (Calculations by MIA)

	Road Tax (NFT and/or RUC) per 1,000 km
Electric - BEV	\$ 76.0
Electric - Plug-in Petrol Hybrid	\$ 51.6
Petrol Hybrid	\$ 39.0
Petrol	\$ 61.7
Diesel	\$ 76.0