

Clean Car submission.

I would like to express my strong support for the Clean Car Standard and the Clean Car Discount. However, I have four primary concerns.

One is that I would like to see stronger targets, to achieve the emissions reductions necessary to meet our Paris Agreement commitments and keep us on track for 1.5 degrees of warming. 105g per km average is not low enough to meet those targets.

The second point is that I would like to see it implemented as soon as possible. Delaying until 2021 is likely to result in stagnation of the EV market over the next year and a half while people wait for incentives, while at the same time there is likely to be a boost in sales of heavy polluting vehicles, as people rush to beat the penalties. Please pass this legislation under urgency to avoid these negative effects.

Thirdly, I have some reservations about the \$80,000 price cap for discounts. If this limit is applied, then I think it should only apply to the base price, not including optional extras. For example, someone buying a vehicle just under the limit should not lose the discount because he opts for a leather seats and a tow bar, which might push the price over the limit. Also, I think utility or commercial vehicles should have a higher limit. I think \$100k would be appropriate, since the base price of these larger vehicles is likely to be higher. It's important that someone who needs a decent sized utility vehicle can still take advantage of the discount if they choose a low emission option. Better still, scrap the limit altogether, since regardless of what price band, we want people to be incentivised to choose a low or zero emission option.

Finally, if RUC is reintroduced at the current rate of \$72 per 1000km, it will make the running cost of an EV more expensive than some hybrids, due to having to pay much higher tax. The threat of this is already putting some buyers off. Such a punitive rate will significantly slow EV uptake. Since electric vehicles are the only ones which can help us achieve our ultimate target of zero CO2 emissions, I ask that you please consider my accompanying document titled Road User Charge Reform Proposal.

My answers to the questions set out in the consultation document are as follow;

1) Yes, I think a Clean Car Standard is appropriate for New Zealand.

New Zealand is long overdue for air quality emission regulation. The fact that we are so far behind the majority of OECD countries with an average of 180 gram of CO2/km is proof that regulation is urgently needed. We need cleaner cars to reduce our emissions according to our commitment to the Paris 2030 and 2050 targets.

We need more energy efficient cars to reduce New Zealand's trade deficit, demand on fossil fuels, and to reduce the price of fuel for every New Zealander. We need healthier cities, as vehicle emissions contribute to poor health impacts for all New Zealanders and cost us \$934 million annually according to the 2012 Health And Air Pollution in New Zealand report. We

need more zero-emission cars to help reduce our carbon emissions to zero in line with the current 2050 goal.

2) I believe that the target of 105g by 2025 is not strong enough. The New Zealand vehicle market is mainly supplied by Japan and UK who already have comprehensive emission targets. We should not be aiming 10 years behind what Japan has already achieved. According to the ICCT LCV 2030 update, EU has a 2025 target of 81g.

As it stands, this policy states that the current proposed step is not enough to get is to our 2030 and 2050 emissions goals. This is why a more stringent target would be appropriate.

3) No I don't think the Clean Car Standard will have a significant effect on price and supply. Japan achieved a 105g per km average in 2014 and is continuing to improve, so even in the used import market there will be plenty available within the target emissions range.

Consideration should be given to a separate policy centered around low-interest loans. This would help spread the higher upfront costs over a longer period. It would give New Zealanders without access to capital the ability to also benefit from fuel savings, safer and healthier cars. For most people without savings, the average car loan is 12.5% over 5 years. A 10 year loan at 4% would make repayments on most EVs less than the cost of a family's fuel bill, letting you pay for your EV with your fuel savings.

4) Yes I believe that the process laid out for the Clean Car Standard is workable.

5) Yes, I think people who import 3 vehicles or fewer should be exempt, due to the high cost of compliance and enforcement. Provided that such imports remain a very small percentage of the total.

6) I support the phasing in of the emissions targets by setting multiple targets which progressively lower to the 2025 target, which I believe should be lower than 105g per km.

7) Yes, I support the time frame for the phase in period. If anything, it could be faster, as the need to cut our vehicle fleet emissions is urgent.

8) Yes, I support a weight adjusted Clean Car Standard.

9) Yes, I support a penalty of \$100 for each gram CO<sub>2</sub>/km that a supplier of new vehicles exceeds its fleet target.

10) Yes, I support a penalty of \$50 for each gram CO<sub>2</sub>/km that a supplier of used imported vehicles exceeds its fleet target.

11) No I don't support the banking mechanism. If a dealer over achieves one year, that's great, but it should not be a reason to under achieve the following year.

12) No I don't agree that the new vehicle sector should have the added flexibility of "borrowing". Unless possibly if it is limited to one year only, with no further borrowing. Otherwise dealers will simply keep passing their debt forward, thus avoiding consequences.

13) No, I do not support an arrangement for suppliers to "pool" their vehicles together to comply as a group. Some dealerships, such as Tesla, will consistently over perform, but if they pool with a higher emitting dealership, then that dealership could sell cars well above the emissions target without penalty. This would be counter to the objectives of the Clean Car Standard.

14) Yes, I agree that new and used vehicle suppliers should not be able to "pool" their vehicles and comply as a group.

15) Yes, I support having a fine not exceeding \$15,000 for an individual for misreporting data for the Clean Car Standard.

16) Yes, I support having a fine not exceeding \$75,000 for a person or organisation other than an individual (eg a company) for misreporting data for the Clean Car Standard.

17) Yes, I support the sanction of disqualification from being a registered motor vehicle dealer if a supplier deliberately attempts to evade meeting annual targets.

18) Yes, I support amending the Fuel Consumption Information Rule so that only vehicles tested to the WLTP, NEDC, the JC08, and the American Federal Test Procedure meet requirements for entry certification.

19) Yes, I agree with the proposed process for setting future emission targets.

20) Yes, I agree that the Clean Car Discount is appropriate for New Zealand, with some further and more encouraging steps to meet the stated aims and better implementation of the feebate system to avoid adverse effects.

The included proposal to bring in the Clean Car Discount and allow the RUC exemption to expire, is not appropriate for the stated goals of this policy, and the current RUC rate, comparable to a 10l/100km petrol car, is not appropriate for electric vehicles competing with sub 4l/100km hybrids.

The ICCT comparison of leading electric vehicle policy in Europe finds that well designed policies are needed to ensure the market uptake of electric vehicles. Policies that apply both at the time of purchase and throughout a vehicle's lifetime have greater influence over consumer's vehicle replacement decision and thus can yield greater CO2 reductions than a single, time-of-purchase policy alone.

Since 2016, the New Zealand government has recognized EVs represent a technology well-suited to our country. Driving an EV results in 80% reduction in CO2 emissions. The

2016 policy incentive removed RUC until the end of 2021, as it was expected that 2% of the light vehicle fleet would be electric by this time. However, in 2019 we can see that this policy alone has failed to achieve this target, and the government will miss the target of 64,000 EVs by 2021 as it currently stands.

When EV numbers become substantial, other questions will need to be resolved, such as a method for EV users to contribute to the maintenance and development of the road network, but removing the RUC sooner than needed will harm EV uptake and is not a sound course of action when we are not on track to meet even the relatively low EV target of 2% by 2021. Removing RUC exemption from zero emission vehicles will have the perverse effect of incentivising the uptake of cars that produce emissions over zero emission vehicles. One example of this is a Nissan Leaf BEV paying triple the road tax of a Toyota Prius Hybrid. For this reason I believe it's necessary to reform the RUC system so that when RUC is reintroduced, EVs pay a similar amount of tax to an efficient hybrid. Please consider my accompanying document titled Road User Charge Reform Proposal.

Currently, with the publication of this potential policy, there is the concern that it will put a dampener on EV sales over the next 3 years, thus cementing the failure of New Zealand to meet the previous Government's goal of 64,000 EVs by 2021. By committing to continue the RUC until 2% of the fleet, considering sensible and fair RUC reform for when it is reintroduced, and actively supporting and encouraging EV uptake with incentives over the ownership rather than just at purchase, will help blunt this potential slowdown. Consideration should also be given to bringing forward the Clean Car discount. This also would help prevent the slow down in EV purchases, and the likely increased sales of high-emission vehicles before 2021.

21) Yes, a benchmark the same as the 2025 emissions target is appropriate. I do believe that target should be lower though, for the reasons outlined in my opening paragraphs.

22) Yes, I support 150 as a minimum, but we can and should aim for better. The Clean Car Standards exist to set requirements for vehicle importers to bring in progressively more fuel efficient or zero emission vehicles.

The reason there is a gradual scale is to do with the realities of availability of clean cars and supply, but incentivising vehicle sales that are outside of our eventual target is counterproductive to the goals of reducing our emissions. Even at 105 grams CO2 per kilometre by 2025, a Toyota Corolla would get \$600 from the scheme in 2021 and be driving emissions at 50 grams past the Clean Car Standard, until 2040.

The first year of the Clean Car Discount should start at the rate we want to achieve, to incentivise adoption of cleaner vehicles so that we can achieve that goal. There should be no discounts of vehicles that are outside of whatever target is set for 2025 (however weight bands should apply). To do so is to incent the purchase of a vehicle that will continue to be outside of the Clean Air Standard for 19 years from purchase.

23) Yes, I believe the level of the fees and discounts in the example Clean Car Discount schedules would increase demand for low-emission vehicles.

According to local and international research, the substantially higher capital cost of EVs in comparison with internal combustion vehicles is one of the greatest barriers towards high EV demand. When talking about a step change in technology that is out of most New Zealander's experience, it creates a formidable barrier to mass adoption.

Price support is regarded as essential to spur significant uptake in EVs. However it is important to have policies that apply both at the time of purchase and throughout a vehicle's lifetime to fully encourage EV demand.

I also disagree with the current level of fees and discounts as set out in the example schedule. The initial discounts range runs from \$600 to \$8000, yet the fee runs from \$2000 - \$3000. A more optimal approach that doesn't incent the purchase of high emission vehicles is a more gradual fee curve, for example from \$500 to \$3000 for new vehicles. For used vehicles, the discount ranges from \$200 to \$2,600 and fees from \$1,100 to \$1,500. The fees could instead range from \$500 to \$1500.

In general, discounts and fees less than \$500 for both new and used vehicles should be avoided as they do not offer sufficient influence to be worth implementing and only add to the scheme complexity and is not relevant to the size of the average price of a vehicle.

Currently the scheme has no range requirements for PHEVs (Plug-In Hybrid Electric Vehicles) and treats them similarly to BEV's (Battery (only) Electric Vehicles), despite a massive difference in emissions. The incentives for non-plugin-hybrids are similarly outsized, when compared to the benefits of full electric vehicles and the stated intention to incentivise and accelerate electric vehicle adoption.

If high emission vehicles are valued at 0% of the discount, low emission and HEV (Hybrid Electric Vehicles) at 25%, PHEV at 50% and zero emission at 100% of the discount, we would have a more appropriate incentive structure to encourage the choice of vehicles which will help us track toward a 2050 zero emission goal.

LEV / HEV:

\$2000 Discount

PHEV:

\$4000 Discount

BEV:

\$8000 Discount.

24) Yes, I think annual change is practical, but I am not opposed to less frequent change.

25) Yes, near new vehicles less than 3 years old should be included with new vehicles.

26) Yes, I think a zero band is appropriate.

27) Yes, I think the size of the zero band is appropriate, but I also think it could start out bigger, to avoid subsidising vehicles which have higher emissions than the 2025 target.

28) Yes, I support the proposal to apply the fees and discounts directly at the point of vehicle purchase.

29) Yes, I support the penalties outlined in this section to ensure that fees and discounts are displayed on each vehicle and are correctly applied by vehicle suppliers.

## Road User Charge Reform Proposal

It is understood that the Clean Car Discount is intended to replace the current RUC exemption which is due for review at the end of 2021. The RUC exemption is a powerful incentive, and removing it at that point in time will undermine the progress made by the introduction of the feebate scheme. I strongly advocate keeping the RUC exemption in place at the very least until EV numbers reach 2% of the fleet, which is looking very unlikely by the end of 2021.

However, EVs will obviously need to start paying their share at some point, so now seems like an appropriate time to discuss how that might be applied in a way that doesn't unfairly disadvantage electric vehicles. The current RUC rate of \$72 per 1000km is entirely inappropriate for vehicles which will be in direct competition with petrol powered hybrids which pay about a third of that in petrol excise.

The 2025 target of 105g of CO<sub>2</sub> per km means that by 2025 the average fuel consumption of a new petrol car will have to be 4.375l per 100km. This means that based on the current excise tax rate of 66c per litre plus 6c ACC, the average petrol car sold in 2025 will pay \$31.50 per 1000km in excise tax and ACC levies.

The most efficient petrol hybrid currently in competition with electric cars is the Hyundai Ioniq hybrid, with a consumption of 3.4l per 100km, paying \$24.48 per 1000km in excise tax and ACC.

Small efficient diesel cars suffer from the same unfairly punitive RUC, with a VW golf diesel paying almost double the tax of the petrol version.

The petrol excise tax system works like a feebate scheme for road tax, in the sense that vehicles with high petrol consumption pay extra, while vehicles with low consumption effectively get a discount. In order to continue driving the necessary transition away from fossil fuels, it's important that electric cars be rewarded for their efficiency and low emissions in the same way that the most efficient petrol cars are.

I propose that electric vehicles and PHEVs below a certain weight, say 1800kg, be taxed at a rate of \$25.00 per 1000km\*, which would align with that paid by the most efficient petrol hybrids. 1800kg would include vehicles such as the Nissan leaf e plus and the Hyundai kona electric, but exclude most larger electric vehicles. Heavier electric vehicles could pay more, but should still be significantly discounted from the standard price applied to diesels.\*\* It would make sense to introduce a lower weight band with a lower price for smaller diesel cars as well.

I also propose that PHEV owners be allowed to claim tax rebates on fuel purchased for their vehicles.

\*If \$25.00 per 1000km is too low then how will we address the low amount of excise contributed by the most efficient petrol powered vehicles?

\*\*There are two justifications for the difference in price between RUC for electric vehicles and diesel vehicles. One is to maintain equality with the most efficient petrol powered models as noted above, the second is that it reflects the significant cost saving to society of not putting harmful particulate emissions from diesel exhaust into the air. The 2012 Health and Air Pollution in New Zealand (HAPINZ) report found that harmful emissions from vehicles cause 256 premature deaths (with social costs of \$934 million) annually in New Zealand. That equates to roughly \$270 per vehicle annually, but realistically, diesel vehicles with their typically higher particulate emissions will account for a larger share of that cost.

Brent Thompson. 25/07/19

## Clean Car Discount submission amendment.

In addition to the comments made in my original submission on June 30, I would like to make the following comments in relation to the Clean Car Discount;

- 1) If it is not possible to put this policy in action until 2021, then in order to avoid a significant suppression of EV sales leading up until the start date, I propose that electric vehicles sold between now and the start date, be allowed to retrospectively claim a rebate when the scheme kicks off. This shouldn't have a huge effect on the amount of money paid out, it just means that prospective purchasers won't need to hold off until the policy starts in order to get a discount. Already there are a significant number of people talking about delaying purchase until 2021, and it's likely that EV sales will grind almost to a complete halt in the final months if no provision is made for retrospective rebates.
- 2) I believe that converting an existing car to electric power has as much value in terms of emissions reduction as buying an electric vehicle. Possibly more value, since it avoids many of the manufacturing emissions associated with producing a new vehicle. I therefore propose that vehicles which are converted to zero emissions power, be allowed to claim a rebate on the cost of conversion when the vehicle is certified. This rebate should be the same as if the vehicle was imported electric.

Brent Thompson. 20/07/2019