

Introduction

In totality (Clean Car Standards and Clean Car Discounts) this scheme is completely lacking in ambition in terms of the major reduction in carbon emissions that the country will be required to achieve.

The scale of emissions reductions required is immense. When speaking very recently to the Hamilton City Council, climate scientist James Renwick said the use of word emergency to describe climate change was appropriate. "The last IPCC report stated that global emissions of carbon dioxide need to be halved by 2030, and eliminated by 2050 if global warming was to be halted. "The report states that this 'would require rapid and far-reaching transitions in energy, land, urban and infrastructure... unprecedented in terms of scale' – I'd call that an emergency situation."

Much of NZ's emissions that are produced by the agricultural sector and the Huntly Power Station will not be required to decrease for much of the period to 2030. Given that these represent such a major portion of total emissions this will place huge pressure on the rest of the economy to make greater savings than if savings were shared proportionally. This scheme is too timid (and not far reaching) to achieve significant emission reductions.

I also strongly doubt that the Clean Car Standards and Clean Car Discounts are the best method to reduce vehicle emissions. As the Associate Minister of Transport says at para 28 of her foreword; "There is considerable uncertainty about the possible pace of this decline (of carbon emissions.)" She said this because, as can be seen from the graph provided, the decline in emissions is determined largely by the uptake of evs. Given this, it is very questionable whether there should be any feebate given to any fossil fuelled car. For example, the Toyota Corolla at 139g/km would already be considered a dinosaur of the Japanese fleet and most likely in less than ten years will also be the same of the NZ fleet.

Recent history is not on the side of this scheme being successful. The statistics from the graph on p8 of the "Ministry of Transport Moving the light vehicle fleet to low-emissions: discussion paper on a Clean Car Standard and Clean Car Discount" clearly show that total emissions from the vehicle fleet have been increasing recently. This is at the same time that this report also discusses that the emissions of individual vehicles imported into NZ have been dropping.

So while the Clean Car Standards and Clean Car Discounts scheme will most likely cause vehicle emissions to drop there are likely to be better options to the Clean Car Discounts that would produce more emission reductions and would address a range of issues that this scheme does not.

I propose an alternative to the Clean Car Discounts that would allow NZ cities to move quickly to address a number of issues other than carbon emissions such as congestion; greater provision of public amenities; and better economic outcomes for the less well off.

I propose that the purchase of all fossil fueled vehicles should have a greater tax applied to them, or a fee if you prefer; and that this revenue should be applied to reduce the price of evs, but most of all that the revenue should be applied to implementing significant price reductions for public transport. I point particularly to the pricing model of Vienna that seems to be the inspiration for pricing schemes across Europe that have driven huge public transport uptake. Vienna with a population about 10% larger than Auckland has more than nine times the number of public transport trips (962 million v 100 million).

However I accept that there is little political will to seriously address climate emissions; so in the alternative I have suggested a tightening of the scheme and significant penalties for breach. I discuss this in detail later.

The Proposed Clean Car Standards and Clean Car Discounts System

By the Commissions own admission feebate schemes have had little uptake internationally.

While this proposal is based on systems that have been applied around the world it is important to note that all of these schemes are implemented against different prevailing factors. So when France initiated the Bonus Malus, public transport mode share in the major city, Paris, was around 59% and so the opportunity to convert people to this mode was much more constrained than in Auckland where public transport mode share is about 5%. Similarly public transport use is relatively low in NZ's other major cities.

While the Bonus Malus of France has been much heralded it has in fact had little impact. I have reproduced material from the internet below. This scheme is apparently what the Productivity Commission has relied on in formulating their proposal. The figures need to be looked at closely as the results have hardly been spectacular. The emissions of new cars sold have decreased on average by 3% per year. This takes no account of the vehicle kilometres travelled (vkt) and therefore total emissions. We have no indication whether people tend to use their lower emission vehicles more because they are cheaper to run. Of course emissions from the remainder of the fleet that has not been replaced remain the same.

The impact on ev uptake has been negligible. It should be noted that the feebate in France has been pitched at a more enticing level to effect behaviour change than it is here.

“In 2018, a fee must be paid for vehicles with CO2 emissions equal to or above 120 g/km. The bonus for EVs is currently at EUR 6,000, whereas hybrid vehicles are no longer eligible for any bonus payments as the market has matured in recent years. However, the French government is currently confronted with the challenge to further decrease average new passenger car emissions and to encourage the sale of more EVs. While average vehicle emissions have decreased by 25% since the launch of the scheme and despite strong growth during the last years, EVs still only had a share of 0.4% in the passenger car stock in 2017.”

It is also useful to look at the feebate scheme of Sweden. It is also much more aggressive in trying to reduce emissions than the proposed NZ scheme.

“As of last July, buyers of any new petrol or diesel vehicle that emits above 95 grams of CO2 per kilometre are stung with an increased annual ownership tax – the ‘malus’ – for the first three years after registration.

The more you emit, the steeper the levy, so the owner of a diesel-fuelled Volvo with a CO2 value of 152g/km, for example, will have to pay 720 euros (\$NZ 1230) annually for three years. By contrast, anyone who buys a car with emissions between zero and 60 grams per kilometre receives a bonus at purchase. Again, it's on a sliding scale, with zero emission BEVs and FCEVs receiving a 5,700 euro (\$NZ9738) rebate. <http://www.scoop.co.nz/stories/BU1906/S00096/bonus-malus-how-swedens-ev-scheme-makes-polluters-pay.htm>

It is difficult to come to any other conclusion that the proposed scheme has arisen from a poor political compromise; that it has been watered down so much that it won't achieve the quantum change that is required in emission reductions.

More importantly, any other alternatives were either ruled out at a very early stage or were simply not examined by the Productivity Commission on whose work this scheme seemed to be based. Largely that might have been due to the assumptions that they made with respect to any change in transport mode share. The change in mode shift used by the Commission when analysing other options to a feebate is pessimistic and bizarre. The commission refers to a Concept Consulting model using an increase of public transport trips of 30% over 20 years. This is despite ATAP 2018 predicts a doubling of public transport trips in Auckland over the next ten years.

There is another significant issue and that is the access to used evs. Most of our second hand imports have traditionally come from Japan. In 2016 there were only 20,000 sold in Japan and so this source of vehicles is not going to satisfy the current demand of around 150,000 second hand vehicles per year even when they do become available here.

There is another compelling reason to encourage people onto public transport and not into electric cars. The Productivity Commission states that if every vehicle was

replaced by an EV then this will place a significant load on the electricity grid which currently could not cope. If the grid can cope in the short term then we might have the bizarre situation where the additional demand for electricity is met by producing electricity from the Huntly Coal Station – fossil fuelled evs.

The cost of not reducing emissions quickly is potentially immense for NZ. In documents released under the Official Information Act, a briefing to Judith Collins on her first day as Energy Minister says the cost to the economy of buying international carbon units to offset our own emissions will be \$14.2 billion over 10 years.

Carbon trading is the process of buying and selling permits and credits to emit carbon dioxide.

In the documents, officials say "this represents a significant transfer of wealth overseas", and also warn "an over reliance on overseas purchasing at the expense of domestic reductions could also leave New Zealand exposed in the face of increasing global carbon prices beyond 2030".

The Risks

The main risk of this scheme seems to be for future generations.

The first risk is that NZ is not moving fast enough and I refer to the MoT discussion paper at p8 where it is noted that light vehicle emissions are expected to keep rising until 2022. If in later years NZ is forced to play "catch up" by significantly reducing carbon emissions then the impact at an individual or national level could be more disruptive or damaging than moving more quickly at this time. I recall the carless days of the 1970's where NZ had to move quickly in response to an energy crisis.

The science of climate change seems uncertain in respect of the rate at which warming may accelerate. I enclose a piece from Stuff, July 2, 2019.

"The amount of ice circling Antarctica is suddenly plunging from a record high to record lows, baffling scientists.

Floating ice off the southern continent steadily increased from 1979 and hit a record high in 2014. But three years later, the annual average extent of Antarctic sea ice hit its lowest mark, wiping out three-and-a-half decades of gains - and then some, a Nasa study of satellite data shows."

The second risk comes from material again identified in the MoT discussion paper at p8 and that is that cars remain in the fleet for an average of 19 years. That NZ is contemplating encouraging the purchase of any fossil fuelled cars in 2021 is bizarre. There is a significant financial risk to encouraging the purchase of lower emission fossil fuel vehicles, because although they may be attractive in 2025 they will be the dinosaurs of tomorrow. With an average life of 19 years, if by 2040 NZ is in a

position where these cars cannot be used then there is a huge financial liability of having to scrap them in the same way that the gun buyback has occurred. It is likely that the cost of this is over \$1-2 billion. This will be a huge imposition on a generation already battling all the others costs of ameliorating the other effects of climate change such as sea walls, drainage systems, response to adverse weather events, mitigating losses from droughts etc.

Some of our cities are subject to severe traffic congestion, and this is not just our major cities, with Queenstown also revealing significant traffic issues. In a world where many of us will drive less in the future it is again extremely short sighted to encourage the purchase of more fossil fuelled vehicles by making them cheaper.

Progressive cities and countries around the world are investing significantly in options other than the single occupancy vehicle. When we look across Europe there is significant investment in public transport and active modes. The C40 cities McKinsey Report identifies mass transport, walking and cycling as the first option to reduce transport emissions.

Parts of Auckland are majorly affected by increasing obesity levels. Simply swapping people from one type of car to another is unhelpful in encouraging people to walk and cycle, one part of the puzzle in reducing obesity.

The Productivity Commission at p376 talks of road pricing mechanisms. If this is not currently in the government's sights then it should be. Emissions in Auckland have increased at the same time as individual vehicle emissions for new cars entering the fleet have dropped substantially. There is a risk that this will continue to occur and indeed the report says emissions will increase until 2022. Auckland's inability to reduce emissions (and congestion) over the last few years suggests that road pricing mechanisms are almost inevitable.

Road pricing tools will impact on the least well off in our communities. As the Productivity Commission correctly points out at p 377, "alternative modes of travel (such as public transport) are likely to become relatively more appealing if consumers face the full costs of private vehicle travel. It is therefore important to reduce public transport fares ahead of the implementation of any road pricing so that families and not just individuals are well placed to take up these options. It is self evident that if government intends that public transport is to be cheaper at any stage then the money has to come from somewhere. Given that greater use of public transport will increase operating costs and perhaps create demand for the networks to be improved then it is better to have a funding source for this sooner rather than later.

There is a huge disconnect between the views of different government Ministries suggesting that there is huge uncertainty about what NZ will be required to achieve with respect to emission reductions. From the MoT discussion paper at p9, "if we

want a largely electric fleet by 2050”; and MBIE reported in Stuff 28/7/2019, with evs at 44% to 74% of the fleet (by 2050) depending on the assumptions.

Continuing vehicle and fossil fuel purchases put pressure on NZ’s balance of payments.

Other Focuses from Other Countries

Generally the European Union (EU) has been at the forefront of reducing emissions. There is now a focus on introducing SUMP schemes (sustainable urban mobility plans). These schemes produce significant economic benefit with a focus on mobility other than by car.

Here is an example from Milan.

- The PT modal share is expected to grow up to 63 per cent inside the city, while car share is expected to decrease by 24 percentage points.
- The cycling network, which currently accounts for 9 per cent of the urban road network, will cover 25 per cent.
- The average trip time is expected to decrease by 8.3 per cent (by 9.5 per cent inside the city) and road congestion, measured according to suitable network indicators^[1], by 10 per cent.
- The PT service offer (seat-km) is expected to increase by 20 per cent and PT commercial speed by 17.5 per cent.

I have previously referred to the success of Vienna. Here is a city of 1.8 million people where by 2025 only 20% of trips are expected to be by car (currently 26%). Yes this is a more compact city than Auckland, but enabled by a focus on planned outcomes.

Many C40 cities have discovered that there is no link between reducing emissions and growth. NZ can take a bolder approach than is proposed here.

Focusing on Emissions Reductions Using Public Transport

Simple mathematics indicates that far greater emissions reduction could occur by encouraging people to travel by public transport. While this option is not available to rural people it will however be available to a significant number of city dwellers, the bulk of NZ’s population.

From the MoT discussion paper we see that emissions are currently at 180g/km with a target of 105g/km in 2025, or a 75g/km saving. However, if motorists were to transfer to trains, light rail or buses with spare capacity the saving would be 180g/km or 2.4 times as much.

NZ public transport use is appallingly low by international standards. Auckland levels are only now returning to the heyday of public transport usage and yet the networks

are far more developed than they were then; neighbourhoods are much more intensified than they were then partly due to infill housing, but also to apartment construction in some suburbs; and in many cities major intensification in the city centre. There is the ability to quickly scale up public transport use in NZ in ways that weren't possible in Paris (the home of the Bonus-Malus system) because public transport mode share was so high.

Vehicle ownership can be the cause of poverty. Recent figures have estimated vehicle ownership cost at \$12,000 per annum. Even for those with more modest vehicles the cost is likely to be at least \$5000 per annum. Enabling families to forgo owning a second car, or any at all, can go a significant way to improving their economic position.

Vienna and Prague amongst others have driven huge public transport ridership using pricing models that encourage people to use public transport all day/ everyday. These two cities have driven ridership using monthly and annual passes. The Vienna annual pass equates to a cost of about NZ\$1.73 per day. The results have been spectacular.

Of course the costs of such a scheme are considerable. There is the ability to fund public transport from a feebate scheme rather than applying money to fund fossil fuel purchases.

In the Alternative

The conservative nature of this proposal suggests that it is likely to be implemented; at best it can only be described as a political compromise . If this is to be so then the proposed Clean Car Discounts structure should be modified. The proposed model seems to fall clearly into the situation described by the Productivity Commission on p252, " On the other hand the insufficient rebates would risk achieving low behaviour change for a high transaction cost." The level at which rebates should occur should be set at a much lower level than is currently proposed. I suggest that the level for new cars should be 105g CO2/km for 2021.

The scheme should be implemented in 2020. There is no logical reason to delay it as emissions reductions needs to start now. It should start at a level of 105g CO2/km.

If the government decides to precede with the Clean Car Standards part of this scheme then by 2025 the emissions standard should be much less than 105g/km. I note that, "The Japanese passenger vehicle fleet is now trending to achieve an average of 82 grams CO2/km by 2020." For this reason it seems reasonable for the 2025 level of this scheme to be set in the range 82-85 grams CO2/km because these vehicles will be available to NZ then, either as a new or used import.

If the imposition of a lower emissions standard results in the importation of less vehicles then so be it. Through a combination of massive imports of cheap import vehicles; a low sales tax (gst) on new vehicles; low annual registration fees; motorists who don't pay all the externalities of the use of roads; and rate payers who subsidise the use of roads NZ has developed a road transport environment that is not sustainable. This is evidenced by the country being unable to build enough roads to alleviate congestion, if this was a sensible solution; as well as the huge emissions problem.

I note that VW amongst others have announced that they are significantly gearing up their production of evs. I note that they intend to produce as many evs in the period after 2020 as they currently produce fossil fueled vehicles. It has not become obvious from the writings just how long a period is, but it is most likely that a huge number of evs will be available.

There must be no cost to the general tax payer from either of these schemes. There should be no administration fund set up by NZTA or anyone else. The scheme should be self funding in every way. It is manifestly unfair that those in the population who have embraced a low carbon life style should have to pay any amount for the implementation and running of this scheme. **If it is not revenue neutral in any year then it must be adjusted to ensure that this deficit is recovered the next year.** For too long the general population has paid for the externalities of driving (Productivity Commission) and as more and more people choose not to drive this becomes more and more unfair.

The proposed penalties for breach of the Clean Car Standards are absurdly low. Let us look at the example given:

1,000 vehicles x 3.25 grams CO₂ per km x \$50 = \$162,500, or a penalty of \$162 per vehicle.

At such a level of penalty the importer may still be able to make a profit on each vehicle. The harm, or damage to NZ is going to be significant because the offending vehicle is likely to remain in the fleet for about 19 years causing further emissions over that time.

Compare this penalty with the situation where an employer fails to provide an employee with an employment agreement (which may or not cause harm) and the employer can face a penalty of up to \$20,000. Compare also the penalty of up to \$20,000 for breach of minimum employment standards; not \$50 for every cent that you fail to achieve paying the minimum wage.

It is incomprehensible that a penalty should be proposed to be low because the margins are low. We should not be concerned that the imposition of a penalty cause an importer to make a loss, but rather the opposite; to ensure that if an importer does breach the legislation that they do make a loss, thereby firmly discouraging such behaviour. Surely if the intention is to set a target then it the attainment of the target

that is important rather than whether the importer can structure their imports to get close to the target?

The penalty for each breach should be up to \$10,000 per breach with costs also recoverable by the regulator.

Summary

- 1) This is a very poor first step to reducing emissions as the material supplied shows that it is unlikely to achieve the necessary results quickly enough.
- 2) If the scheme is adopted in totality it needs to be implemented from early 2020.
- 3) The scheme needs to be at no cost to the tax payer in any way.
- 4) The Clean Car Standards for 2025 need to be reduced to 82-85 grams CO₂/km which is reviewable downwards.
- 5) The Clean Car Discounts structure needs to be set initially at 105g CO₂/km below which a rebate applies.
- 6) Penalties need to be substantially higher.