



9 September 2019

Peter Mersi
Secretary for Transport
Ministry of Transport
PO Box 3175
Wellington 6140
(by email: cleancars@transport.govt.nz)

Dear Peter

Submission on Proposals for a Clean Car Standard and Clean Car Discount

I am pleased to submit, on behalf of Toyota New Zealand, our views and recommendations on the proposed Clean Car Standard and Clean Car Discount scheme.

We are a wholly owned subsidiary of the Toyota Motor Corporation of Japan and have been operating in the New Zealand market for over fifty years. Our brands represent 25% of the New Zealand vehicle fleet and we have been the market leader for new vehicle sales for 31 years. Toyota vehicles also represent a significant share of used vehicle imports entering the New Zealand fleet each year.

Toyota Motor Corporation has made a significant commitment to sustainability. By 2050 Toyota aims to reduce the CO₂ emissions of our vehicles by 90% in comparison with 2010 levels. This ambitious objective is well ahead of any global standards or targets for CO₂ reduction in the motoring industry.

In New Zealand, we seek to be recognised as an environmentally responsible company and are actively pursuing the achievement of the Government's COP 21 target of a 30% decrease in GHG by 2030. Both Toyota and Lexus brands are currently tracking to achieve this challenge through the availability of lighter, more aerodynamic vehicles as well as more energy efficient powertrains (including petrol electric hybrids and plug-in or range extender petrol electric hybrids).

We support action by the Government to address climate change, and to meet New Zealand's international obligations. We recognise that this will involve some cost to NZ; wrestling with the climate change challenge is not an easy task.

We agree that transport should be an area of focus for change, and that efforts to reduce emissions from our vehicle fleet is critical. However, just focusing on new light vehicles entering the fleet will be insufficient to deliver the outcomes sought by the Government. Measures are needed that also focus on use and exit of vehicles already in the fleet.

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A broader strategy is required for changes to the transport system. The currently proposed measures should be further developed having regard to such a strategy. ANNEX ONE discusses some of the issues and measures that are needed for an effective strategy to transition the transport system to low-emissions. We also recommend two complementary measures that should be introduced along with the Clean Car proposals currently under consideration.

All cars sold in New Zealand are sourced from overseas markets and principals who supply new vehicles to multiple countries. This means local distributors are competing for sometimes quite limited global supply of certain models. The size and nature of new vehicles entering the fleet is also not simply a supply-side issue. They reflect the preferences of consumers, whose needs are determined by a range of considerations that may be unique to New Zealand.

The design and implementation of the proposals should reflect these market realities, so we believe demand-side measures will be most effective in delivering the changes required in transport. Accordingly, we support a feebate scheme. Similar schemes have been shown to work in overseas markets. The currently proposed Clean Car Discount has many positive features but it requires further refinement. ANNEX TWO includes our views and recommendations for the proposed Clean Car Discount.

We also support the adoption of a fuel economy standard. It may give distributors greater leverage with vehicle manufacturers to secure supply of low-emissions models for New Zealand. However, if the standard were to proceed as proposed, it will have an adverse effect on the vehicle industry and consumers as it could potentially lead to a slower transition to low-emissions vehicles. It will require significant further refinement to achieve the Government's intentions. ANNEX THREE includes our views and recommendations for ensuring a fuel economy standard is designed and implemented that will be fit for New Zealand market conditions.

We want to work with the Government and the Ministry in the further design of the two proposals, and on other complementary demand-side measures to support the transition of our vehicle fleet to low-emissions.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Alistair Davis', written over a horizontal line.

Alistair Davis
Chief Executive Officer

cc Peter Mersi, CEO Ministry of Transport
Hon Julie Anne Genter, Member of Parliament

Attachment: Toyota NZ Clean Car Submission (Sept 2019)

Toyota New Zealand Submission on Proposals for a Clean Car Standard and Clean Car Discount

ANNEX ONE: A MORE STRATEGIC APPROACH IS NEEDED

The current proposals will not achieve the government's desired outcomes, even if they are amended as we recommend. Any material impact on our emissions profile over the next two decades will require demand-side measures that not only focus on vehicles entering the fleet, but also on the use of vehicles already in the fleet, and the more rapid exit of older high-emissions vehicles.

Toyota New Zealand Recommends

A broader strategy be developed that reflects the unique nature of the New Zealand market and its vehicle fleet. Such a strategy should focus on:

- 1) Measures to influence future demand for vehicles entering the fleet, including:
 - a) A rolling maximum age ban of eight years for imported vehicles be implemented immediately, as a complementary measure to the current Clean Car proposals.
 - b) Fringe Benefit Tax rules be amended to remove incentives for the purchase of light commercial vehicles where they are intended primarily for use as a private passenger vehicle.
- 2) Measures to influence the use of vehicles already in the fleet, and
- 3) Measures to increase the exit of older high-emissions vehicles from the fleet.

Measures for vehicles entering the fleet

As vehicles have become more fuel efficient over the last two decades, New Zealand consumers have tended to buy larger vehicles. This is quite different to the trend observed in many other markets. It is too simplistic to attribute this trend to the selection of models and their marketing by distributors. The trend is unquestionably the result of consumer preferences and choices.

Sixty five percent of new vehicles entering the New Zealand fleet are purchased by corporates, not households. The choices made by these organisations may depend on a range of factors including the cost of ownership (including tax treatment), who bears that cost, and the corporate stance on environmental matters.

Second-hand vehicle imports are another significant feature in New Zealand. Patterns of imports are heavily influenced by the preferences of private buyers.

Consumer demand for new vehicles compared to other countries may be due, in part, to such things as the nature of our economy, tax policy, urban density and design and leisure time activities.

A strategically sensible approach would be to first focus on understanding the factors that influence consumer demand and choices in New Zealand. The Ministry should work closely with vehicle distributors and importers to ensure it has a robust understanding these things. Further measures should then be developed having regard to this knowledge.

There are a range of possible measures that could be used to increase consumer preferences for low-emissions vehicles. For example, a higher annual vehicle licensing fee could be charged for less fuel-efficient or older vehicles.

There are two complementary measures that we believe should be introduced along with the currently proposed Clean Car measures. They are:

- a) A rolling maximum age ban of eight years on used imported vehicles.
The combined effect of a feebate scheme and a fuel economy standard may be to increase the incentives to import older low-emissions vehicles. We have already seen an influx of electric cars into New Zealand that are close to the end of their life in other markets. While these vehicles may seem like an attractive option in the short-term, they will have a detrimental longer-term effect, especially if we see large volumes enter the fleet. They will remain in our fleet for a very long time and are also likely to be less safe than newer vehicles. We believe a rolling age ban of eight years would ensure only appropriate newer models of low-emission vehicle are imported during this critical transition period.
- b) An amended Fringe Benefit Tax (FBT) exemption for light commercial vehicles to remove incentives to buy these vehicles when their primary use is as a private passenger vehicle. Vehicles that are not principally designed for carrying passengers are currently exempt from FBT. This has resulted in these larger vehicles being purchased to secure significant tax benefits. We believe some consumers who use them primarily as private passenger vehicles would make different choices if tax exemption did not apply in all circumstances. The tax exemption should be designed to ensure it only applies to vehicles that are designed and used primarily for commercial purposes. This change may help dampen the demand for some larger vehicles in New Zealand.

Measures to influence the use of vehicles in the fleet

The next few decades will see innovations in technology and patterns of social change that are likely to significantly alter preferences for vehicle ownership and use. The emergence of increasingly connected and autonomously guided vehicles, together with more energy efficient powertrains, mobility as a service, micro-mobility and ride sharing will all contribute to changing the levels of vehicle ownership and use.

Measures that accelerate the uptake of these developments are likely to significantly reduce the emissions profile from the transport system. These developments may also have co-benefits, including improvements in safety and a reduction in the need for significant new investment in public infrastructure.

Extending subsidies for public transport to incentivise other forms of shared mobility, or a programme to accelerate the implementation of road pricing that will influence modal choice and vehicle use are just two examples of where innovative policy measures could be adopted to influence vehicle use and emissions levels.

Although a politically charged topic, fuel prices also have an influence on vehicle usage (and ultimately vehicle choice); as the ETS more effectively reflects the real cost of carbon, it is likely that fuel price increases will impact on NZ's transport emissions profile.

Measures to increase the exit of older vehicles from the fleet

We already have a comparatively old vehicle fleet. Scrappage rates have slowed in the last decade, so older vehicles are likely to remain on our roads longer in future. We know that the distances travelled by older vehicles are typically lower but reducing the average age of our fleet will improve the emissions profile for New Zealand. It would also deliver road safety benefits.

There are significant social equity issues to address in exiting older vehicles from the fleet. The cost of scrappage and of upgrading to a newer vehicle will be prohibitive for many low-income households.

There are opportunities to further incentivise the scrappage of older vehicles. This could include more stringent requirements for warrants of fitness and higher costs for annual licensing of older vehicles. Cash incentives could be provided for the scrappage of older vehicles, or for low income households to trade older vehicles and purchase more fuel-efficient cars. Schemes like this were used in various countries as economic stimulus initiatives around 2009. They were hugely successful in shifting people to smaller more fuel-efficient vehicles.

Although policies to exit old vehicles may have design challenges, it is important to have such complementary measures. The consequence of excluding such measures is that older high-emission vehicles will remain on our roads longer, thus delaying New Zealand's shift to a low-emission economy.

ANNEX TWO: TOYOTA NEW ZEALAND'S SUBMISSION ON THE CLEAN CAR DISCOUNT SCHEME

We support the introduction of a feebate scheme in New Zealand. This would recognise that the mix of vehicles sold is primarily determined by consumers, and that demand-side measures are an essential feature of what is required to encourage the uptake of low emissions vehicles.

The design and implementation of the scheme will require great care to ensure it has the intended effects. If the scheme is to be successful in encouraging consumers to choose low-emissions vehicles, then the level of fee or rebate needs to be sufficient to influence these choices. The scheme also needs to be introduced and managed carefully over time. The expectation that the scheme will be fiscally neutral each year may also inhibit its effectiveness. These and other matters are discussed below.

Toyota New Zealand Recommends

- 1. That a feebate scheme be introduced to encourage significant changes in consumer behaviour.*
- 2. The initial benchmark be set at 150 grams of CO₂ per kilometre.*
- 3. The benchmark should be progressively lowered, but by reference to actual weighted average of CO₂ emissions achieved rather than the target in the proposed Clean Car Standard.*
- 4. Discounts should not be reduced until 2025.*
- 5. Thresholds for actual market shares be used as the trigger for reducing discounts after 2025.*
- 6. There be a graduated level of discount to incentivise the uptake of higher cost zero or low-emissions vehicles up to \$100,000.*
- 7. The retail price should be defined as the actual sale price of a vehicle.*
- 8. The Clean Car Discount be introduced in a manner that minimises the effect on sales between the time of its announcement and the time it comes into force.*

A feebate scheme is needed

Changing the emissions profile of new vehicles entering the New Zealand market will require a significant shift in consumer preferences and behaviour. Substantive changes in these things will take some time to achieve.

As discussed in ANNEX THREE, vehicle suppliers will be subject to very significant penalties if the weighted average of emissions from the vehicles they sell exceeds the target. This will affect the viability of some distributors, increase vehicle prices and in-turn potentially slow the transition to low-emissions vehicles.

One way to minimise these unintended effects would be to introduce a feebate scheme in advance of the standards programme (as recommended by the proposals). The proposed Clean Car Discount will be a critical incentive to drive change in consumer behaviour, especially in the initial period of transition.

Toyota New Zealand Recommends

- 1. That a feebate be introduced to encourage significant changes in consumer behaviour.*

The benchmark

The initial benchmark should be set at a level that will incentivise changes in consumer behaviour. We agree that the proposed 150 grams is a reasonable initial benchmark.

The benchmark will determine which vehicles are eligible for a discount, and which will be subject to a fee. We agree that the benchmark should be progressively lowered, but only as the actual weighted average of emissions decreases from new vehicles entering the fleet, whether by changing customer preferences or the evolving motor vehicle technology.

Lowering the benchmark by reference to the target in the proposed Clean Car Standard may lead to the premature removal (or reduction) of discounts, and the imposition of fees, on some vehicles before it is desirable. This would consequently reduce the effectiveness of the scheme and undermine the achievement of the government's desired outcome.

Toyota New Zealand Recommends

2. *The initial benchmark be set at 150 grams of CO₂ per kilometre.*
3. *The benchmark should be progressively lowered, but by reference to actual weighted average of CO₂ emissions achieved rather than the target in the proposed Clean Car Standard.*

Setting and adjusting the rates for discounts and fees

The level of discount or fee will likely provide a powerful signal for most consumers.

The Ministry's proposal would see discounts decreased over the period 2021-2028. We think this is undesirable. Discounts should not be reduced at least until 2025, and then only after a pre-determined market threshold has been achieved.

The period to 2025 will be a critical transition period. It would be counter-productive to remove (or reduce) discounts before they have had sufficient time to affect real change.

We are also concerned that the proposed reduction in discounts could lead to short-term spikes in sales that could further inhibit the transition.

By using actual levels of market sales as a threshold, a discount would only be removed (or reduced) when it is apparent that a predetermined level of market penetration has been achieved, and when a higher level of discount may be less critical in affecting consumer choice. Thresholds should be designed that use the level of market sales to trigger reductions in discounts after 2025.

It will be necessary to design the scheme to be fiscally neutral over its life rather than each year. This would allow higher discounts to be offered in the earlier years of the scheme in order to shift consumer behaviour. The level of discounts could then be gradually phased out after 2025, when they have achieved their objective. Fees could be retained on high-emissions vehicles for a longer period to fund the discounts.

The scheme should therefore be set up to operate in deficit until, say 2025. That deficit could be funded by a loan from the National Land Transport Fund which would be repaid after 2025 from surpluses in the scheme as discounts are phased out.

Toyota New Zealand Recommends

4. *Discounts should not be reduced until 2025.*
5. *Thresholds for actual market shares be used as the trigger for reducing discounts after 2025.*

Exclusion of vehicles with a retail cost of over \$80,000

We agree that high cost luxury vehicles should be excluded from receiving discounts. This exclusion, however, needs to be carefully designed.

Vehicles that have zero or very low-emissions including electric, plug-in hybrids and hydrogen cell powered cars are still relatively expensive compared with the equivalent petrol powered models. In this regard, the \$80,000 threshold may be too low to incentivise the uptake of some models of these vehicles. We understand the concern about wealth transfer, but believe some encouragement might desirably still be given to consumers to choose these low-emission models.

We think a more graduated scale of reduced discounts should be adopted for vehicles with comparatively higher retail prices. The discount should reduce to zero in bands of \$10,000 for vehicles with a retail price between \$80-\$100,000. This would mean all vehicles with a retail price of over \$100,000 would receive no discount. A vehicle in the \$80-90,000 band would only receive 66% of the standard discount for that class of vehicle.

It will also be critical to also establish a very clear basis for determining the retail price of vehicles to manage any exclusions. It is common with luxury vehicles for a range of features to be added as options. These can sometimes significantly alter the ultimate sale price of the vehicle. The retail price should sensibly be the actual sale price of the vehicle, although some definitional work will be required to handle issues around whether on road costs, servicing or other ingredients are included or excluded from price calculations.

Toyota New Zealand Recommends

6. *There be a graduated level of discount to incentivise the uptake of higher cost zero or low-emissions vehicles up to \$100,000.*
7. *The retail price should be defined as the actual sale price of a vehicle.*

Method and timing for introduction of the proposed scheme

We are concerned about the effect if there is a considerable lag between the announcement of the feebate scheme and the date of it coming into effect. This lag will lead to the deferral of vehicle purchases by consumers that would receive a discount, or a spike in sales for those vehicles that would be subject to a fee.

Any lag will be harmful to the transition, especially if the scheme is announced and not introduced until 2021. For example, sales of light trucks will most likely surge before the feebate is introduced, which will create a bubble of high emitting vehicles in the fleet that will take decades to remove. A spike or dip in sales will also be harmful to the vehicle industry. These effects should be avoided if at all possible.

The Government needs to carefully design and prepare for introducing the scheme, in conjunction with the vehicle industry, so that it will not have a harmful effect on sales in the interim. The scheme would ideally be announced and take effect immediately. Any legislative or regulatory changes that are needed to empower the scheme must be designed so it can be introduced in this way.

Toyota New Zealand Recommends

8. *The Clean Car Discount be introduced in a manner that minimises the effect on sales between the time of its announcement and the time it comes into force.*

ANNEX THREE: TOYOTA NEW ZEALAND'S SUBMISSION ON THE CLEAN CAR STANDARD

We support a fuel economy / emissions standard as one of the measures to encourage the transition to a low-emissions fleet. As a technology neutral approach it encourages the widest possible innovation, whether that be electric, hydrogen, hybrid or simply more efficient internal combustion vehicles. This is good public policy. However, for any standard to be fit-for-purpose it must be designed and implemented to reflect New Zealand market conditions, especially if it is to minimise unintended effects.

The combined effect of both the supply and demand features of the New Zealand market mean that, if the standard is implemented as currently proposed, it will result in crippling penalties on the vehicle industry that are not justified or desirable.

The cost of penalties will necessarily impact on retail prices and may lead to the exit from the market of some distributors. These effects will potentially slow the uptake of low-emissions vehicles. They will also detrimentally impact consumers, businesses and the economy.

These unintended effects of the proposed standard demonstrate why great care is needed in its further design and implementation.

While the proposed standard has the significant merit of being relatively simple, it is likely that a more sophisticated approach (such as the European methodology) will provide clearer signals to overseas principals who are already familiar with its classifications and algorithms. Clearly moving to such a structure will take some additional months of consultation between the motor industry and the Government officials, but this is likely to result in a more effective design that achieves lasting change in New Zealand's transport emissions profile, without putting the whole transport sector at risk of collapse.

If the approach of a full redesign is unacceptable to Government, then significant changes would be required to the proposed scheme. The following recommendations provide an approach that we think would improve the proposed standard.

Toyota New Zealand Recommends

1. *That the target of 130 grams of CO₂ per kilometre be set for 2025, with a review of targets by bands to ensure realistic targets by vehicle types.*
2. *A biennial review process (starting in 2022) for setting targets.*
3. *Eight weight bands be adopted to help manage the future blurring of lines between models and types of vehicle.*
4. *The penalty rates proposed by the Ministry be adopted only if the target for 2025 is set at 130 grams of CO₂ per kilometre by 2025.*
5. *The arrangements to manage compliance with the standard over time should provide that:*
 - a) *The ability to 'bank' credits for exceeding the target should not be time bound.*
 - b) *Borrowing to be constrained by an 'overdraft' limit that cannot be exceeded, but which can be repaid over a period of more than one year.*
 - c) *Penalties only be imposed if the 'overdraft' limit is exceeded, or the NZTA is not satisfied the 'overdraft' can be repaid in the next three years.*
6. *All vehicles imported into New Zealand should be captured by the standard.*
7. *Super credits or multipliers be used to increase the incentives for zero or very low- emissions vehicles as follows:*
 - a) *vehicles with emissions of 0-20 grams of CO₂ per kilometre they should be given a weighting of 2 vehicles.*
 - b) *vehicles with emissions of 20-50 grams of CO₂ per kilometre they should be given a weighting of 1.5 vehicles.*
8. *Multiple targets should be used, from 2025, to phase in the standard in preference to increasing percentages.*
9. *The NEDC measurement methodology should be used at least until other emissions testing methods ensure a consistent measurement of vehicles sourced from different markets.*

The target

An initial target should be challenging, but achievable. The Ministry's proposed target for 2025 appears to have been selected by reference to the levels observed in other countries, rather than what is realistic and feasible for New Zealand. It would also seem that in other countries this target is designated for the passenger car sales rather than encompassing the wider light truck and SUV models we currently sell in NZ.

We are committed to the need to transition the fleet to lower emissions, however our modelling shows that Toyota New Zealand cannot realistically achieve the target of 105 grams of CO₂ per kilometre by 2025. This should be the source of serious concern for the Government. Toyota New Zealand is probably better placed than most other distributors to respond to a fuel economy standard because of the significant long term investment of our parent company in hybrid and hydrogen cell technologies.

If the Government proceeds with this 105 gram target we would be subject to significant penalties by 2025. The effect of large penalties being imposed on the industry will be to further slow the transition to low-emissions vehicles. This is because all vehicle prices will rise, thus reducing sales, which will encourage consumers to retain their existing vehicles – the age of the fleet will increase further delaying the introduction of low emissions vehicles. Accordingly, we believe a target for New Zealand needs to be set with some considerable care and understanding of our market conditions.

The achievement of any target will depend on several factors - the availability of appropriate low-emissions models, advances in vehicle technology, and a significant shift in consumer preferences.

It is not a straightforward matter for distributors to access supply of vehicles or model variants that have low-emissions. A fuel economy standard may give distributors some added influence, but they have a very limited influence over the decisions made by manufacturers. Manufacturers will prioritise supply of low-emissions vehicles to their most important markets. Limited global supply of some models, and the demands of larger markets mean there is a significant risk that, even with their best endeavours, local distributors will be unable to meet the current expectations of the Government. The simple imposition of a standard will not guarantee that manufacturers will supply a suddenly cleaner model line-up (or that customers will buy them).

Improving vehicle technology is a long-run undertaking. Toyota Motor Corporation is developing vehicle technology that will deliver very significant improvements in vehicle emissions performance over the next decade. But it will take several years to design and develop a new and reliable model, which then needs to be in production for 7-10 years to make it commercially viable. It is unrealistic to assume a significant change in the technology in vehicles available in the New Zealand market before 2025. For this reason there may be an argument that the targets should be extended beyond 2025.

The proposed standard will also not change consumer behaviour. If consumers continue to demand larger vehicles, suppliers will only be able to comply with the standard by limiting their supply. This is likely to see prices increase for some models that are in high demand, and the purchase of some low-emissions models deferred (owners will simply retain their preferred vehicle for a longer period).

The effect of these factors is that, if the proposed target is retained, distributors will face very substantial penalties. This may result in some distributors deciding it is no longer viable for them to operate in New Zealand. Vehicle prices will also increase to recover the cost of penalties. The combined effect of these things will be to further delay the required transition. There will also be adverse social and economic effects.

We believe 130 grams of CO₂ per kilometre is a more realistic but still challenging target for 2025. This target would still be very difficult for the motor industry to achieve. Our modelling shows, for example, that Toyota New Zealand would likely still incur a significant penalty in 2025 if this target were adopted. Accordingly we recommend this target knowing that, to achieve it, we would still need to deliver a very ambitious programme of change, and some shift in customer preferences would need to be achieved. Without knowledge of individual distributor model plans, we cannot comment on how many distributors could achieve the targets across weight bands. Further discussion with other distributors would be required to assess whether even this adjusted target is realistic for the industry as a whole. The graph and table below show the required annual improvement rate is far ahead of prior year achievement and may be too much of a stretch within one model cycle.

Further we believe that applying a standard rate of reduction across all weight bands is impractical – generally technology advances proceed faster in medium size passenger vehicles than in both light vehicles (which already have low emissions) and heavier commercial vehicles (which have longer development cycles). Toyota's modelling is based on taking the historical improvement rate for the major weight bands and adding an additional factor to their annual improvement rate to establish targets per band. Along with the changes in sales mix that can be achieved with the introduction of the Clean Car Discount programme, we believe the target of 130 grams of CO₂ per kilometre may be possible. Toyota's schedule of targets (by weight band) and revised sales mix is noted in the table below.

Note that we have taken the same start point in 2022 as the Government proposal.
However we identify that some reductions will be achieved between 2019 and 2022,

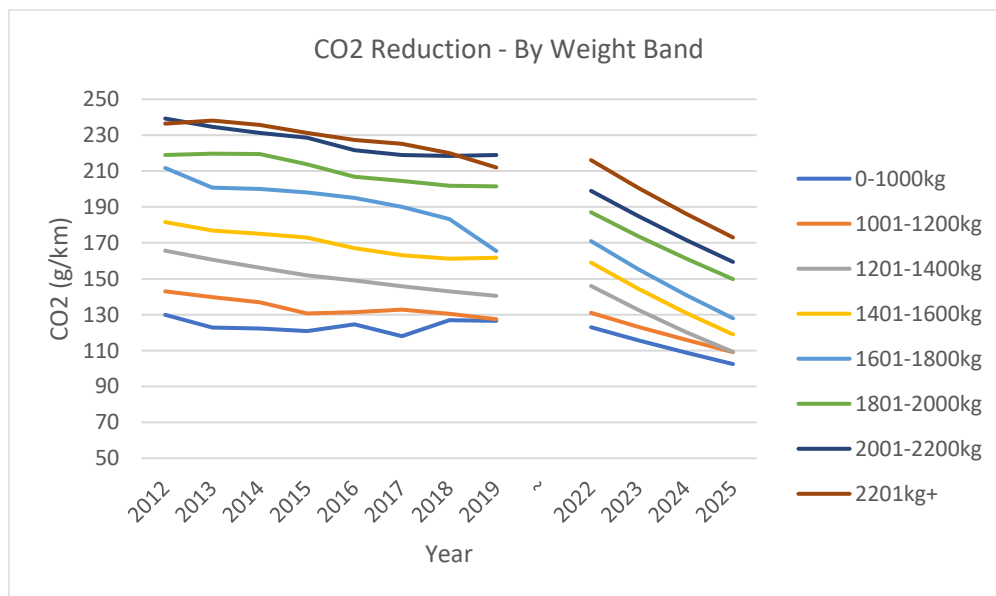
due to advancing technology and the general direction of Government policy. We have not revised the start point as the general trend will create a buffer of credits in 2022-23 to assist companies transition to the tough targets of 2024-25.

Note that in modelling a change in sales mix, we have assumed that by 2025, a reversion in sales mix to 2015 is possible and by 2030 a reversion to 2010 can be achieved. In short, the changes in price brought about by the Clean Car Discount scheme and adjustments under the standard will, over the next decade, reverse the customer trend to purchase SUVs and Trucks at roughly the same rate as the previous decade.

It should also be noted that by having different improvement rates by weight bands, there will inevitably be a time when the 'lines cross over.' For this reason regular review is essential to recalibrate targets based on what is being achieved by the industry.

Proposed Weight Band Targets

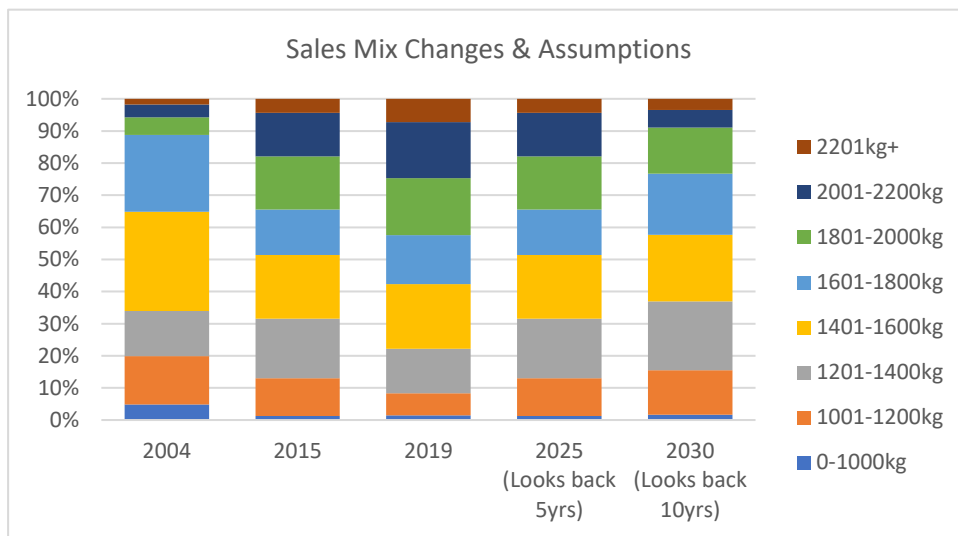
Weight Bands	Ave Ann. Reduction (2004 - 2019)	2022 Target	2023 Target	2024 Target	2025 Target	Ave Req. Reduction (2019 - 2025)
0-1000kg	-0.8%	123	116	109	102	-3.2%
1001-1200kg	-1.8%	131	123	116	109	-2.4%
1201-1400kg	-2.1%	146	133	120	109	-3.7%
1401-1600kg	-2.3%	159	144	131	119	-4.4%
1601-1800kg	-2.5%	171	155	141	128	-3.8%
1801-2000kg	-1.9%	187	174	161	150	-4.3%
2001-2200kg	-1.9%	199	185	172	159	-4.5%
2201kg+	-1.8%	216	201	186	173	-3.1%



Note: The sharp reduction in 2019 emissions in the 1601-1800kg class is mainly due to the introduction of RAV4 hybrid – it demonstrates the impact of a step-change in technology; of course that shift will now last another 5-7 years before another step-change can be achieved by Toyota.

Sales Mix Assumptions

Weight Bands	2004	2015	2019	2025 (Looks back 5yrs)	2030 (Looks back 10yrs)
0-1000kg	4.9%	1.3%	1.5%	1.3%	1.7%
1001-1200kg	15.0%	11.7%	6.8%	11.7%	13.8%
1201-1400kg	14.1%	18.6%	13.9%	18.6%	21.5%
1401-1600kg	30.9%	19.8%	20.1%	19.8%	20.8%
1601-1800kg	23.9%	14.2%	15.3%	14.2%	19.0%
1801-2000kg	5.5%	16.6%	17.7%	16.6%	14.4%
2001-2200kg	4.0%	13.6%	17.4%	13.6%	5.5%
2201kg+	1.8%	4.3%	7.3%	4.3%	3.4%



Given the complexity, severity and penalties associated with the emission targets, we recommend a regular review by the Ministry of Transport to ensure the Clean Car Policies are achieving the intended Government response to the recommendations of the Climate Change Commission. This review should be every two years, starting in 2022.

Toyota New Zealand Recommends

1. The target of 130 grams of CO₂ per kilometre be set for 2025 with a review of targets by bands to ensure realistic targets by vehicle type.
2. A biennial review process (starting in 2022) for setting targets

Weight bands

The achievement of the currently proposed target will be impossible without a significant shift in market demand for SUVs and light trucks. For Toyota New Zealand, these represent around 69 percent of our current sales.

We note that several jurisdictions (including Europe and North America) have adopted different targets for light commercial vehicles. This recognises there may be market and other factors that will influence the trend in emissions for this class of vehicle.

We think a separate target may not be the best solution for New Zealand. In Europe, light commercial vehicles are separated and these are predominantly vans. In New Zealand SUVs and light trucks that are heavily used as passenger vehicles represent a high proportion of these vehicles. There is a risk that a separate target could lead to some 'gaming', especially as the lines may be increasingly blurred between

the different classes of vehicle. We consequently think that a sensible structure of weight bands is the best way to manage this issue. We favour the adoption of eight weight bands, consistent with the Ministry's proposal.

Toyota New Zealand Recommends

3. *Eight weight bands be adopted to help manage the future blurring of lines between models and types of vehicle.*

The penalties regime

The penalties regime needs to be designed with considerable care and understanding of the impact that penalties will have.

As mentioned earlier, our modelling shows the cost of failing to meet the proposed target would be very substantial, even for Toyota New Zealand. These costs will ultimately be borne by consumers and may impact on the financial viability of some suppliers. Penalties could therefore have a detrimental effect on achieving the outcomes being sought by the government. So, very careful design and implementation of the penalties regime is critical if it is to avoid unintended effects.

We believe the most effective way to manage these risks is to set a target that is challenging but achievable. Penalties will therefore only be imposed in circumstances that are reasonable. If the target of 130 grams of CO₂ per kilometre is adopted as we recommend, we accept that the penalty rates of proposed by the Ministry would be reasonable.

If our recommended target is not adopted, the proposed penalties regime would be unworkable and require very significant redesign.

Toyota New Zealand Recommends

4. *The penalty rates proposed by the Ministry be adopted only if the target for 2025 is set at 130 grams of CO₂ per kilometre by 2025.*

Banking, borrowing and grouping

We support the need for banking, borrowing and grouping. We do not agree that these should be time bound in the way that is currently proposed.

The Ministry's proposal indicates that a supplier would be able to 'bank' any over achievement and use this for under-achievement in the following three years. It is unclear to us why a supplier should not be able to bank these 'credits' and hold them in perpetuity, if they so wish. This time limit creates a serious disincentive for suppliers to achieve the target earlier than required. We consequently think that suppliers should be free to retain these credits and use them, or trade them, as they see fit without a time limit.

We support the proposal for a supplier to 'borrow' any underachievement of the target in one year against over achievement in a future year. The ability to effectively defer the payment of penalties through borrowing must obviously be constrained in some way. Suppliers should not be able to accumulate a level of debt that they may not be able to pay (in effect unpaid penalties). We believe that there is a more effective way of managing this issue than limiting the borrowing to one year, as currently proposed.

It may be difficult for any under achievement by a supplier to be made up in the following year, even with best endeavours. A more effective and realistic approach would be for the NZTA to agree a limit (something akin to a bank overdraft limit) that each supplier cannot exceed. The NZTA would then work with the supplier to satisfy itself whether they have an adequate plan to return to 'surplus' over, say, the following three years. This would allow a supplier to recover underperformance over a longer period, but also constrain their ability to underperform again.

Some care will be needed by NZTA to manage potential evasion and avoidance practices by some suppliers, especially if they are confronting substantial penalties. For example, it may be necessary to have powers that address the risk of non-compliant suppliers establishing new companies to avoid their liabilities.

Toyota New Zealand Recommends

5. The arrangements to manage compliance with the standard over time should provide that:

- a) The ability to bank credits should not be time bound.*
- b) That borrowing should be constrained by an 'overdraft' limit that cannot be exceeded, but which can be repaid over a period of more than one year.*
- c) That penalties only be imposed if the 'overdraft' limit is exceeded, or the NZTA is not satisfied the 'overdraft' can be repaid in the next three years.*

Exclusions from the standard and other imported used car issues

The current proposal would exclude people who are not deemed to be vehicle importers. We are concerned that this exclusion could lead to some gaming of the scheme. It may be simpler and ultimately more effective to apply the scheme to all imported vehicles.

The current proposal could lead to a change in business models for used imports, where suppliers may simply act as buyers' agents. Given that most private buyers will purchase less than three vehicles, this business model would see large numbers of vehicles avoiding the need to comply with the fuel economy standard. This outcome would be highly undesirable.

For anyone who is not deemed to be a 'vehicle importer' (i.e. imports less than three vehicles), NZTA could simply apply the standard on a vehicle-by-vehicle basis when they are first entered into the Motor Vehicle Register. Consequently, in these circumstances, a fee would be payable for any vehicle that exceeds the applicable emissions target at the time it is first registered.

When combined with the feebate scheme, the fuel economy standard will provide added incentives to import older low-emissions vehicles. This will have negative long term effects on the fleet. This is why we have separately recommended the adoption of a rolling maximum age limit of eight years for imported vehicles.

Toyota New Zealand Recommends

6. All vehicles imported into New Zealand should be captured by the standard.

Recognition of zero or very low-emissions or off-cycle features

Super credits (or multipliers) are commonly used in the standards of other jurisdictions. These multipliers give recognition for features that might not be captured by the emissions testing procedures, and incentivise the uptake of zero or very low-emissions vehicles. No provision is currently made for these super credits in the proposed standard.

Some added recognition for zero or very low-emissions vehicles seems to us to be highly desirable. By providing a multiplier for these types of vehicle, an added incentive is given to suppliers to sell such vehicles. This may assist in lifting the market share of electric and plug-in hybrid vehicles in the transition period, and provide a stronger incentive that is consistent with achieving the target.

We believe multipliers should be adopted as follows:

- For vehicles with 0-20 grams of CO₂ per kilometre they should be given a weighting of 2 vehicles.
- For vehicles with 20-50 grams of CO₂ per kilometre they should be given a weighting of 1.5 vehicles.

Similarly, recognition should be given to features like engine stop/start or air conditioning improvements, that may not be captured by the emissions testing regimes ('off cycle' features).

Toyota New Zealand Recommends

7. Super credits or multipliers be used to increase the incentives for zero or very low- emissions vehicles as follows:

- a) For vehicles with 0-20 grams of CO₂ per kilometre they should be given a weighting of 2 vehicles.*
- b) For vehicles with 20-50 grams of CO₂ per kilometre they should be given a weighting of 1.5 vehicles*

Multiple targets for the transition

We support the approach of multiple targets that would be progressively lowered as a fuel economy standard is phased in beyond 2025.

The phasing of multiple targets is more consistent with how the scheme will need to operate in the longer-run, and recognises the need for a transition in all segments of the vehicle market. An increasing percentage of the ultimate target could lead to compliance being achieved, at least in the short-run, simply by a supplier adjusting the model mix in certain market segments.

Toyota New Zealand Recommends

8. Multiple targets should be used to phase in the standard in preference to increasing percentages.

Emissions measurement issues

We are concerned that the effective implementation of the standard will require certainty and consistency in the measurement of vehicle CO₂ emissions, especially where different standards and testing regimes apply.

We note the Ministry's intention regarding the Fuel Consumption Information Rule so that vehicles tested to the WLTP, NDEC, the JC08 and the American Federal Test Procedure will meet requirements for entry certification.

There can be no ambiguity over how the units of CO₂ emissions will be measured for a standard to be applied fairly and equitably. The WLTP measurement methodology is problematic because of variations between markets. For this reason, we favour the use, at least initially, of the NEDC methodology.

Toyota New Zealand Recommends

9. The NEDC measurement methodology should be used at least until other emissions testing methods ensure a consistent measurement of vehicles sourced from different markets.