The NZ Clean Car Standard: A Failing Compromise. CCS became Unique & A-typical, unlike any other Country. It's failing because CCS is out of touch with availability of clean family-size cars.

Executive Summary – NZ Clean Car Standard is unique, not a copy of Europe or Australia.

Here's the reality – New Zealand's Clean Car (Importer) Standard CCS – is now a '*unique and problematic approach',* to increasing the availability of cleaner cars. It's NOT *a' tried and tested Euro-policy'* and isn't *'directly linked to the Australian partner market'.* It's not the same as Europe, and the inaccurate WLTP3 conversions distorted our targets from Australia, and our model types are also different. *So its flawed - we wish it wasn't, but it is.* We were involved in original policy consultation, so we had high hopes of CCS, *and it still could work if adjusted*. But its ended up too aggressive and CCS also ignores supply availability, (the MIA asked for longer and VIA said targets are 5 years too soon for supply, ahead of Japan's fleet, the MTA agreed). CCS is also unaffordable - all the clean alternatives are 15-60% higher landed cost than break-even cleanest ICE, or mild-hybrid cars. And to boot the inequity hits the average Kiwi-family hardest as a % of price. The MTA stated, and we agree with them, CCS & CCD would impose a 22% increase in motoring ownership and purchase costs, TCO, in 2025, vs 2022, *even after* factoring in fuel savings and CCD rebates, because the cleaner cars cost more, so Kiwi-families will need to spend more to access it. The MoT Social Impact Cost Analysis didn't stack up, we said so, MTA said and so did the Treasury in fact.

However, CCS did work, to make New importers source a cleaner range and mix of models by 2024.

Why did it gone wrong? *Compromised targets.* Simply because NO other Country tried to implement this type of policy targets on both Used cars as well as New, or at the same time. I add at the 'same time', because some Countries are exploring a separate policy on Used car imports, but with later targets, limits and timelines, but not yet. Those Countries are recognising it's not simply a case of retire used cars early by subsidising cleaner New cars. Those Countries also have manufacturing to support. No Country that doesn't make it's own cars are even considering such a policy – they simply decide, which year is appropriate to impose the past New car exhaust and emissions legislation, onto Used imports, (like Euro4, or 5 or 6 or JC18 or CAFE20). Most do it 5-8years later.

Verdict: is it broken? YES for Used imports! The target is impossible until hybrid & EV SUVs arrive.

#2024 Used failed target by -7.1g CO2, on 102,000 LVs = $10.2million @ avg $14/g traded credits

#2025 Used fleet entry forecast is -14.4g fail, on 92,000 LVs = $34.4m @ avg $26/g traded credits

The real problem with that is within is Family-size cars/SUVs, as there aren't enough clean ones:

#2025 Used family cars f/c fail -21g, on only 40,000 car/SUVs, *but the market demand is 60,000+*

#2027 Used family cars will fail -29g = $800pu penalty cost or CO2 gramme credit trading offset

#2028 the family-car size fail is -56g = +$2,000pu. (+21% on average family-car price of $18,000!)

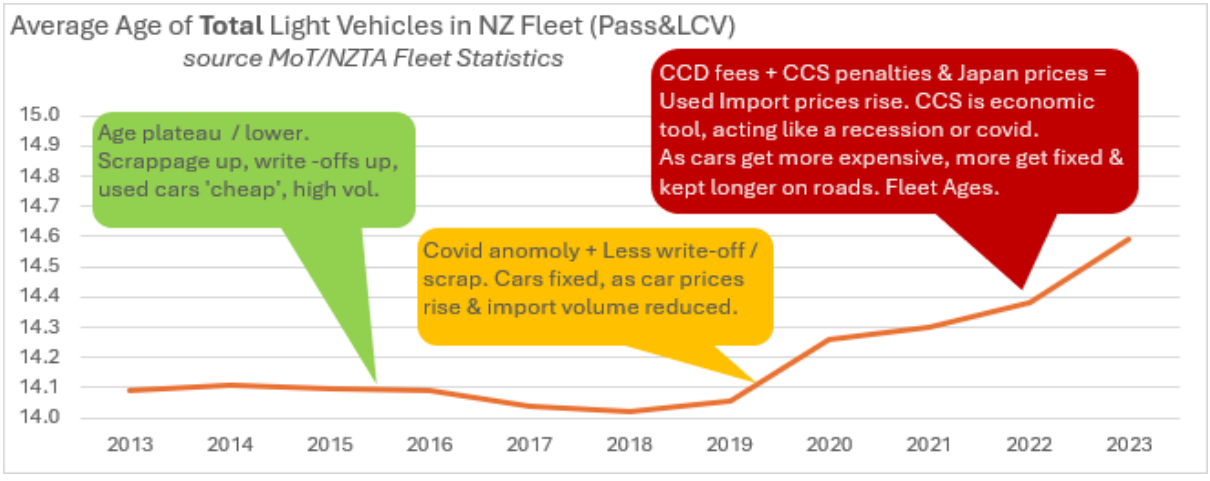
(New also failed by the way – these numbers above are just the Used weighted average fails)

The fundamental problem= it doesn't work when there's not enough clean family-size cars! at the right price to import to fulfil the majority of demand. And, by family-size, I stress I mean ***medium 5-seaters***, not the odd 7-seater. Bluntly that means a cost/availability limit, to the import volume each year. It's shrunk, due to low viable volumes of the ones the importers can get, to remain viable and feed demand. So theres fewer Used imports to sell, theres' fewer to refresh the fleet, all unbalancing the economics of owning cars for longer & the rate of emissions reductions.

For New, CCS is only a bit broken, because the CCD rebates saved it, but, from now it won't. CCD incentivised New EVs so the New industry has a bank of CCS CO2 credits to pay for failure penalties in 2024, 2025, 2026, but after that it's pay up and pass on the penalties to consumers. 2028 is bust like Used. Indeed so many credits that the carbon price of New credits to trade was only $12 in 2023 until Q4 of 2024! (No one paid the NZTA set penalty). Although, one problem for New, is that over 80% of those credits are held by 5 companies who could trade them, obviously Tesla and BYD being two of them. The other 20% is held by New importers who need their own internal bank of credits, to offset their own passenger car penalties in 2025 and 2026. This also defeats the only key policy feature difference between New and Used, the different carbon price - Used is meant to be half New. But until April this year, for 2 years, the Used price has been higher than New – doubling down on the Used pain and core inequity of CCS -***it hits Used cars hardest and kiwi families most.***

Unless Cabinet lift 2028 targets, the 2028 volume forecast is less than 70,000 Used imports, that means importers out of business and jobs, and the erodes the mobility of the wider NZ worker labour force by 2030. From 2029 onwards the Toyota Rav4 2018/19 models come down to a viable yard price – this heralds practical clean motoring, without having to change lifestyle to electric. Of course there's plenty of small and mini used cars, like Honda Jazz/Fit, Toyota Aqua, Prius & Corolla – but those size cars are less than 40% of the Used market. ***It's broken because that's unrealistic***.

It's also broken, because CCS is now slowing the refresh of the fleet. Increasing overall fleet emissions of an average older vehicle. Fewer imports means a slowing refresh, of a fleet that now has accelerated ageing again. As imports reduce, more existing older cars stay on roads, at their higher emissions than if a replacement import was purchased. That loss of a sale, transfers back through the chain of trade-ins, in the fleet, to 22-25year old cars staying in use and becoming more viable to repair again. As supply drops, and demand rises, prices rise again. Double whammy. This is easy to show as an offset, 10,000 fewer imports in fact negates the benefit of importing any 100,000 (or so) of cleaner cars. Yes, 10,000 fewer imports in 2025, negates the gain from the 102,000 cleaner imports last year. Because in the chain, 10,000 owners of the really old cars no longer traded, are still using them. In fact at an emission intensity of over 250g/km for the oldest. For the average vehicle age though, the fleet age bell-curve of volume is now centred at a 2010 car, with 2010 emissions, compared to a 2011 car with 2011 emissions. So fleet emissions increased, even as the average fleet entry import got 4g/km cleaner. *See below graph of Average Age of Fleet.*



We need more, not fewer, imports of Used & New to bring that back down, because not everyone can afford a New car, we also need Used. And not everyone can yet afford a clean Used import, so the comparative cost of repairing and fixing those old cars, just gets more viable for an extra year of use, versus trading up now. And that's just on 10,000 fewer imports, let alone the missing 30,000 family-size Used imports, in limiting volume, 2024 CCS in totality negated 2+years fleet-entry gains.

Ouch. So, its so broken, CCS is now part of driving UP FLEET EMISSIONS. NZTA Fleet Statistics data shows this, as the 2023 and 2024 VKT per vehicle increased, also the Average age increased, after it stalled and dropped 2017-2020 for the first time in two decades as fleet refresh had grown.

Whats the Answer? Separate Realigned targets – factored to the majority of volume family cars.

- The joint weight and CO2 averaging doesn't work for New or Used, (maybe it does a bit for now, on New). The weight allowances are too high, they are not justified or required, (proven by our MoT and the Australian Transport Commission). But, arguably, the transition needs it to go down in steps, to a flat target for all cars, as a zero CO2 weight allowance in 2027 or 2028.
- The joint targets don't align to either markets majority volume – it's never going to work when the majority of volume bell curve, isn't aligned around the weighted sales average. That's the point of weighted averaging of targets, but a combined markets only serves one, its like Used now has to comply with one hand tied behind its back, while kneeling and paying more tax.
- The timeline is too short for the majority volume, family-size cars/SUVs to comply in emissions. So the importers can only obey the law by paying penalty, that's not compliance, that's avoiding court. It's also policy-induced inflation and a pointless inefficient cost drag on GDP, that doesn't reduce fuel imports consumption or make any more vehicles refresh the fleet.

Show & Tell – give me examples of why CCS can't work across combined imports

To illustrate how far out of kilter the weighted average targets and actuals are for Used compared to New, lets look at those Family-size cars that are the majority of the passenger volume and central peak of the mix bell curve.

The current 2025 CCS target of 112.6g/km CO2, has a calculation for each vehicle imported based on it with adjustment for weight/size. The passenger car Mean Tare Weight reference is 1,482kg; this means heavier cars 1,482kg > , get an extra CO2 allowance in it's target, (4.57g CO2 per 100kg Tare), while lighter cars <1,482kg get a reduced allowance so their target is stricter by the same grammes. So a 1,682kg family size cars target for New and Used is 121.5g CO2.

New family cars average around 140g, heavily influenced by the best seller Rav4 hybrid at 123g, totalling about 55,000 of the 90,000 cars (60%), including about 8,000 family EVs per yr at 12g average – this means a penalty of about 19g. In New cars, less than 6% of the mix are mini cars, they don't achieving their targets on average, so have started run down. Bye Bye Fiesta & Polo!

Used family cars average around 165g, because there are hardly any hybrids SUVs, large hatches, wagons to source yet, and only includes about 700 EVs. Family-size Used totals about 60,000 of any 100,000 cars (spookily 60%), but not in 2024, this meant a penalty of about 44g. Theres plenty of Used mini cars like Aqua or Fit, all beating target, cleaner than New, but only demand for about

40,000 max. Hence the problem. As a total average Used passenger are cleaner as a mix than New, but its because they're smaller and lighter. Unfortunately the weighted formula for CCS penalises that – in essence the Used mix of vehicles has to be a lower CO2 than New. Which is impossible if they are to meet demand for family-size cars, which they can't. So volume reduces and gets limited.

The 2025 CCS weighted average for Used cars is also 1,379kg avg, so their market mix target is -5g below the national average @ 107g CO2. Out of alignment with the 60% majority of the volume imported, causing that +44g penalty. At virtually the same carbon gramme trading price as New – so about double the cost on vehicles that are on average 1/3rd the price of New. (Inequitable and decimating volume).

Meanwhile, New cars are 1,674kg avg, so their market mix target is +9g above the national average target at 121.5g CO2. Making it nearly aligned with the 60% majority of the volume imported with only that 19g penalty. At virtually the same carbon trading price as Used – so about half the cost on vehicles that are on average 3x the price of Used. (Inequitable and ineffective on volume)

What else to know about CCS' road to bigger failure and the 2028 decimation of Used imports

For New, additionally, the impending 2025 close call and 2026 passenger car failure of the Australian equivalent of CCS, their New Vehicle Efficiency Scheme, NVES, will emphasise attention to our own 2024, 2025 and 2026 passenger car failures. The Aussie's targets are also too strict and advanced, although they have their equivalent to CCD with tax reliefs to incentivise EV 2025 & 26, but they didn't allow for a 2023-24 credit bank to build, going straight into 2025 targets, with 2026 at a similar level to NZ, so they're into Au$50 a gramme penalty for failure to comply. Also noting Australia were wise enough to only apply NVES to New imports, so they just have historic ADR rules applying to their used imports from the year they were manufactured, which is more sense.

Isn't CCS adapted to suit Used? Sort of, somewhat naively yes, but NOT really, *it's inequitable*. The only adaptation is to a different $ charge penalty for Used, that was set arbitrarily at half the $ penalty price, because "that sounded about right, for about half the life left!", but designed as a CCS credit transfer-trading market between importers. That means a free-trading carbon price like New cars. So, New are supposed to pay a higher $ price. But as noted above, it turns out the free-trading system now negates that price differential, as their aren't enough Used so the price is hig, and theres over-supply of New from 2023-24, so that price is low. Again benefitting New and penalising Used proportionately higher, versus their selling prices. In January the largest CCS carbon trading month so far, the price of both were $26/gramme! This parity in carbon credit trading prices, means inequitable pressures and car yard prices, because average New cars are $62,000 (according to Industry KPIs), versus Used average of $16,000, (TradeMe data). Ouch - the burden of carbon levy is on average used car buyers not new, wealthier buyers or business.

Logic would also suggest that emissions and fuel consumption rules have already been applied to Used cars in the territory in which they were first registered New, so why legislate twice on the same thing later in life? Once it exists a 10-year old Toyota Corolla or Nissan X-Trail has the same emissions, used anywhere in the world, bringing only the cleanest to NZ, means the highest emissions just stay or go somewhere else, still to be used and emit. A levy here achieves nothing

globally! Why prevent it's movement to markets where it would still freshen the fleet in comparison to older cars staying on the roads in lower income households -like NZ. Yes we'd rather reduce our imports of fuel and family costs, but in the case of CCS, the family now just pays when trading up instead of at the pump.

Logic suggests CCS should prevent dumping of old stock here. But if it does, then that just means continued use goes elsewhere. Further, if it stays in the Japan's domestic used fleet, their refresh also slows, slowing the manufacture and sales cycle of a New car somewhere back along the sales chain. Now of course we don't want to be a dumping ground for the lowest performing cars of those eras, so yes we might want Kiwis to still reduce their fuel consumption and reduce wasted GDP as expense in business in burned fuel imports, but that can also be achieved with more recent adoption timelines for applying past years New vehicle exhaust emissions rules to Used, say to 6-7 years, compared to other markets 8 to 11 years lag, so we don't need CCS for that…..Oh, but wait we already do that here in NZ – our New vehicle exhaust rules for Euro4 emissions (a 2003 Euro policy), on NZ New cars 1 Jan 2007 standard, 4 years behind to allow stock to be readily and practically available and for Australian production to also catchup, which was a key factor. Euro4 was then imposed on Used imports from 1 Jan 2013, good, well done, we already do this 7 years in arrears, smart ! 😊 BUT, for the impending next exhaust rule for Euro5, it is planned to be implemented in 2027 to Used cars, only 3 years after the April 2024 implementation on New cars – so then we will only lag 3 years and put in place an effective 7-8 year import age limit. Ouch, again, because the average 8 year old car is $21,000 not $16,000 – another hit for the average Kiwi-family, for limited real benefit in fuel cost terms over that ownership. A double ouch alongside CCS Target timeline. Even bigger ouch will be with Euro6d planned for New from July 2028. At that point the exhaust rule will take over from CCS as the importers standard to meet, arguably removing most of the need for CCS, but it's planned for Used too in 2028 - how does that work!? ☹ Euro6d so early, will decimate import volume to <60,000 vehicles. That topic is getting heated!

2028 as it stands becomes the year of Used Industry Policy Induced receivership on top of policy-induced inflation and policy induced fleet emissions increases (VKT per vehicle into emissions per VKT) and to cap it off policy-induced fleet ageing. That's a hefty bunch of unintended consequences that means yes its broken, yes its failing and yes it costs too much to comply. That is why CCS targets can never now be achieved again. 2025 is the last year it 'works' properly as intended for New imports, 2023 was the last year it 'worked' for Used. But, arguably its never 'worked' for Used.

FYI: Salt in the wounds. How was it supposed to work? Here's what a 2021 Cabinet briefing document expected would happen, below. A social cost-benefit by 2030 of $188m. *No it hasn't and won't.* 2024 to 2027 alone is forecast to be +$100m of NET penalty Expense just to Used, with average VKT fleet emissions and ageing rising. Alongside some other inflationary pressures the average New vehicle price, has risen from below $50,000 in 2018 to over $62,000 in 2024. Some of that is transfer of cars to SUVs, and ever larger Utes, but also some of it is now embedded CCS carbon price, if you want to check – see the price evolution of the Subaru, Mazda & Suzuki ranges, who have been short on any EVs to offset CCS penalty fees and had to pass on all the cost! There's now no offset benefit and all the equity evaporated, as soon as import volumes plummeted. Gone.

Impact and benefit of this policy

13. Table 1 below summarises forecast carbon emissions of New Zealand's light vehicle fleet from today out to 2030 and to out 2050, together with the impact of this policy in terms of carbon reduction and social cost benefit.

Area	Year	Business as usual	With Clean Car Standard
Average vehicle emissions (grams of CO_2 per kilometre (g CO_2 / km))	In 2025	152g	116g in 2025 (25% reduction) if 105g (31% reduction) set for 2026
	In 2030	99g	90g *(refer para 14)*
	In 2035	63g	63g *(refer para 14)*
Total emissions from all light vehicles from 2020 (Megatonnes (Mt) CO_2)	to 2030	122	120 (1% reduction)
	to 2050	293	290 (1% reduction)
Total emissions for light vehicles entering NZ from 2020 (Mt CO_2)	to 2030	31	29 (5% reduction)
	to 2050	130	127 (3% reduction)
Social cost benefit ($m) from 2020	to 2030	-	$188m
	to 2050	-	$403m

Footnote – on aligning a new CCS target with the new LTZ Exhaust Rule:

I'm sure others will write about this more part more eloquently, in more detail soon, but here goes..

So, back to the possible scenario of just letting the LTA Exhaust rule work on Used:

The NZ Land Transport Act, home to all these policies, set a standard for Euro4 emissions (a 2003 Euro policy), on NZ New cars 1 Jan 2007 standard, 4 years behind the rest of the source markets, to allow stock to be readily and practically available to NZ importers, and also for Australian production to also catchup, which was a key factor.

Euro4 was then imposed on Used imports from 1 Jan 2013, good, well done, by that time 6 years later there was Used Euro4 or equivalent stock available from Japan younger than 11 years old to serve the demand. It cleansed up imports with only a marginal increase to yard prices. It meant cutting out most 2000-2003 cars, but left enough cleaner source stock to supply export markets, with NZ grabbing the cleanest.

What if this is the approach for Used instead of CCS, or with a smaller narrower, less devisive, 'cream and dregs' feebate system on the best and worst 20% of imports. A CCD/CCS hybrid on top, visible, transparent, just to tweak the mix in favour of cleaner hybrids and EVs and reduce the volume of the worst emitters. This would suggest that NZ makes Used imports follow Euro5 again 6 years after New, i.e. on 1 Jan 2030, because NZ went Euro5 on 1 April 2024. But, NZ policy makers legislated LTA to introduce Euro 6d on 1 July 2028 to Used, when New only goes Euro6d in July 2027! In reality, to avoid yet more unintended consequences and policy-induced receiverships, the equivalent Used exhaust rule regimes should be applied for Euro6d, 6 years after New in 2032!

https://www.transport.govt.nz/assets/Uploads/Cabinet/Cabinet-paper-Vehicle-Exhaust-Emissions-Rule-2012.pdf

Now if CCS was aligned to this new legislation – then it should really follow the timeline of the exhaust rule too - to add some carrot (with stick) to anything under say 150g until 2030 and at a 4% reduction rate in CO2 per year, like New, then be 132.7g in 2033. This would also allow the real-world availability of hybrids to transition NZ to cleaner cars until EVs are available and affordable.

> Used family-size EVs will be available from 2033, the CCS cream on top of this, as CCS carrots.

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This analysis is based on publicly available information and policy documents current as of July 2025.