

31 May 2023

The Hon Catherine King MP
Minister for Infrastructure, Transport, Regional Development and Local Government

The Hon Chris Bowen MP
Minister for Climate Change and Energy

Dear Minister King and Minister Bowen,

**RE: The Electric Vehicle Council's Submission to:
Fuel Efficiency Standard—Cleaner, Cheaper to Run Cars for Australia**

The Electric Vehicle Council (EVC) welcomes the opportunity to respond to the Australian Government's Fuel Efficiency Standard Consultation paper.

The EVC is the national peak body for the electric vehicle (EV) industry in Australia. We represent members across the EV value chain, including car, bus and truck manufacturers, importers, electricity network operators, charging infrastructure suppliers, recyclers, fleets, financiers, retailers, service providers, property owners and charging networks. Our mission is to accelerate the electrification of transport for a sustainable and prosperous future.

Informed by message testing conducted in 2022, the EVC recommends the government adopt the term New Vehicle Efficiency Standard (NVES) to more accurately reflect the purpose of this regulation, which is to encourage the supply of more efficient new vehicles. This change in terminology would also help to provide clarity to the community that this standard **does not** apply to existing vehicles already on Australian roads and/or to fuel. In line with this recommendation, the remainder of our submission adopts the term New Vehicle Efficiency Standard or NVES.

We congratulate the Australian Government for its leadership in committing to develop a well-overdue New Vehicle Efficiency Standard for Australia. After a decade of inaction, Australia finally has the opportunity to introduce a globally competitive NVES that can not only deliver significant reductions in transport costs and emissions for Australian households and businesses, but also foster the growth of local industry across the EV value chain, supporting jobs across mining, manufacturing, energy and recycling.

A globally competitive standard will support a shift away from our current dependency on foreign oil, to a future where all Australians have access to a wide range of electric vehicles powered by Australian-made energy and built using Australian-mined materials.

A transparent, credible and globally competitive NVES will reward those car makers that supply greater volumes of low and zero-emission vehicles to Australia and penalise those that do not – exactly as it is intended to do. Those car makers that increase supply sooner will be able to capture the financial benefits enabled via a globally competitive NVES.

An Australian NVES must also ensure that the transport sector does its fair share in contributing to the achievement of the government's legislated emission reduction targets. Transport is currently the laggard of emissions reduction in Australia and without a globally competitive NVES, transport emissions are unlikely to fall. A weak standard will ultimately shift the burden of harder and faster emissions reduction from global car makers to Australian farmers, manufacturers, energy suppliers, households and other local businesses.

The Electric Vehicle Council supports the Australian Government's emission reduction targets, and we support the transport sector in doing its fair share to achieve these targets.

Detailed answers to the consultation questions have been included in this submission. In summary, the Electric Vehicle Council recommends that:

- Australia develops a **globally competitive NVES** that enables our nation to **catch up to comparable global markets** like the US, EU and New Zealand by 2030 – at the latest. This is necessary to ensure that Australian transport emissions start to fall, and that the government meets its legislated emission reduction targets.
- An Australian NVES should aim to support the supply of vehicles of all shapes and sizes to meet the needs of consumers, however, it must also recognise that the **Australian vehicle market is dynamic** and that new market entrants will act to fill any gaps that emerge due to inaction of existing suppliers if the government sends a clear signal.
- An effective, credible and transparent NVES design should be adopted that includes **minimal concessions/bonus credits** to minimise administrative burden and provide clearer insight into how the Australian new vehicle market is tracking.
- The government should support a range of **complementary measures** (detailed in this submission) to further increase supply and support the adoption of low and zero-emission vehicles.

It is critical that an Australian NVES is developed and legislated during 2023 so that it can start during 2024. Every additional year of delay is one less year that we have for catching up to other markets overseas, and one more year that Australians are left paying higher fuel bills and are left to suffer the severe health consequences of transport pollution.

We look forward to continuing to work with the government, our members and other stakeholders to support the introduction of a globally competitive NVES in Australia.

If you have any questions about this submission, please do not hesitate to contact Dr Jake Whitehead, Head of Policy at: office@evc.org.au.

Thank you for your consideration of our submission.

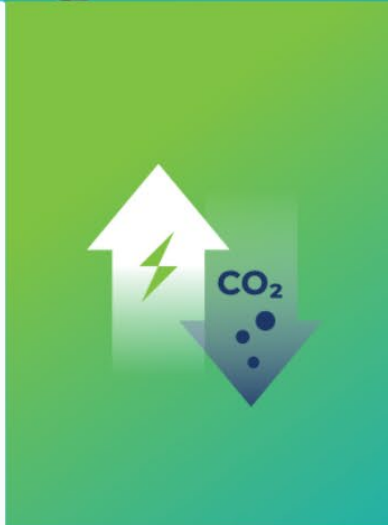
Yours sincerely,



Behyad Jafari
Chief Executive Officer
Electric Vehicle Council



Recommendations for a New Vehicle Efficiency Standard for Australia



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Guiding principles

GENERAL

- Are these the right guiding principles? Are there other principles that you think we should keep in mind?

The Electric Vehicle Council supports the government’s five guiding principles for the development of a New Vehicle Efficiency Standard (NVES) for Australia:

1. EFFECTIVE

- An Australian NVES must be globally competitive, meaning it must aim to catch up with other major global markets by, or ideally before 2030, in order to be effective in increasing the supply of low and emission vehicle models while supporting the achievement of Australia’s emission reduction targets.
- A globally competitive NVES must be effective in supporting the EV targets set in the majority of Australian states and territories (see **Figure 1**), and that were subsequently endorsed in the National Electric Vehicle Strategy.

| State | National market share ^a | EV sales target | | Source | |
|--|------------------------------------|-------------------|--------------------|--|------------------------------|
| | | 2030 | 2035 | 2030 | 2035 |
| New South Wales | 31% | -50% ^b | 100% | NSW EV strategy ^c | COP26 signatory ^d |
| Victoria | 26% | 50% | 100% | Victoria’s zero-emissions vehicle roadmap ^e | |
| Queensland | 22% | 50% | -100% ^f | Queensland’s new zero-emission vehicle strategy ^g | |
| South Australia | 7% | — | 100% | | COP26 signatory |
| Australian Capital Territory | 1% | — | 100% | | COP26 signatory |
| Northern Territory, Tasmania, Western Australia ^h | 13% | No target | | | |
| National average | | -45% ⁱ | -86% ⁱ | | |

^a Estimated based on 2021 sales data by state. Source: Mike Costello, “VFACTS: Australia’s 2021 New Car Sales Detailed in Full,” *CarExpert*, January 6, 2022. <https://www.carexpert.com.au/car-news/vfacts-australias-2021-new-car-sales-detailed-in-full>

^b 52% by 2030–2031

^c New South Wales Government. *NSW Electric Vehicle Strategy*, June 2021. <https://www.energy.nsw.gov.au/sites/default/files/2022-09/nsw-electric-vehicle-strategy-210225.pdf>

^d Government of the United Kingdom, *COP26 Declaration on Accelerating the Transition to 100% Zero Emission Cars and Vans*, updated November 17, 2022. <https://www.gov.uk/government/publications/cop26-declaration-zero-emission-cars-and-vans/cop26-declaration-on-accelerating-the-transition-to-100-zero-emission-cars-and-vans>

^e Victoria State Government, *Victoria’s Zero Emissions Vehicle Roadmap*, May 2021. https://www.energy.vic.gov.au/_data/assets/pdf_file/0031/583726/Zero-emission-vehicle-roadmap.pdf

^f Queensland’s 100% target is for 2036

^g “Queensland’s New Zero Emission Vehicle Strategy,” Queensland Government, updated September 20, 2022. <https://www.qld.gov.au/transport/projects/electricvehicles/zero-emission-strategy>

^h EV sales targets for government fleet only are in Western Australia: 25% EV sales by 2025 to 2026; Tasmania: 100% EV sales by 2030; and Northern Territory: increase number of EVs by 200 by 2030.

ⁱ State-level EV sales targets were weighted by their individual national market share. For 2030, we assumed that the states with a 100% EV target by 2035 will reach 50% EV sales by 2030, even if there is no interim target announced for 2030.

Figure 1 Summary of EV Sales Targets by Jurisdiction (2022). Source: [ICCT](#).

2. EQUITABLE

- If a globally competitive NVES is not developed for Australia, the burden of faster and sharper emissions reductions will be shifted from global car makers to Australian farmers, manufacturers, energy suppliers, households and other local businesses. This would not be a fair or equitable distribution of the economy-wide responsibility to support the achievement of the government’s legislated emissions reduction targets, particularly with transport already being the sector furthestmost behind the government’s targets of a 43% reduction by 2030, and net zero by 2050.

-
- Complimentary policy measures are critical for driving the uptake of EVs in fleets to accelerate the development of a low and zero-emission used vehicle market that offers affordable options to all Australians.
 - A newer vehicle fleet that capitalises on the latest vehicle technology and has been enabled through a globally competitive Australian NVES, will not only deliver a reduction in transport emissions, but will also improve road safety. As a result, this will reduce the significant costs associated with road trauma and fatalities, as well as vehicle pollution-related premature deaths and disease¹.

3. TRANSPARENT

- Australia should develop a relatively simple NVES to increase transparency for both car makers and consumers while reducing administrative burden.
- A transparent standard will ensure car makers can more readily quantify the financial benefits of credits accrued through a NVES, monetise these credits, and be pass on these on through vehicle price reductions for consumers to further drive demand.
- A transparent scheme will reward those car makers that supply greater volumes of low and zero-emission vehicles to Australia and penalise those that do not – exactly as it is intended to do. Those car makers that increase supply sooner will be able to capture the financial benefits enabled via a globally competitive NVES.

4. CREDIBLE AND ROBUST

- To be credible and robust, an Australian NVES should only have a slow start for the first two years to support its introduction – if adopted in 2024. This must be immediately followed by a linear-to-strong reduction in NVES targets to catch up to other major markets by, or ideally before 2030. A later introduction of the standard would require a more rapid reduction in targets.
- The EVC supports a simpler standard that has minimal concessions/bonus credits, however, if such flexibilities are included in the standard, to maintain credibility, the standard will require a stronger reduction in headline NVES targets – given the weakening effect of including any flexibilities.

5. ENABLE

- An Australian NVES should support and enable consumer choice – particularly in terms of increasing the supply of low and zero-emission vehicles of all shapes and sizes, across a wide range of price brackets.
- The standard should account for different segments of the new vehicle market decarbonising at different rates, while sending a strong signal that supply investment must be prioritised to support Australia in heading towards an end goal of more than 95% of new vehicles being zero-emission in the mid-2030s. As outlined by the International Energy Agency², International Council on Clean Transportation³, Energy Transitions Commission⁴ and other experts⁵, this trajectory is necessary for achieving net zero by 2050.

¹ <https://minerva-access.unimelb.edu.au/items/490c13bc-f66a-49c4-aab4-95e871174495>

² <https://iea.blob.core.windows.net/assets/dacf14d2-eabc-498a-8263-9f97fd5dc327/GEVO2023.pdf>

³ https://theicct.org/wp-content/uploads/2022/12/Australia-FE-standards_final.pdf

⁴ <https://www.energy-transitions.org/wp-content/uploads/2020/09/Making-Mission-Possible-Full-Report.pdf>

⁵ <https://transportfacts.org/>

Design assumptions

GENERAL

- Are there any design assumptions that you think will put at risk the implementation of a good FES (or NVES) for Australia?
- Are the exclusions for military, law enforcement, emergency services, agricultural equipment and motorcycles the right ones?

Australia's new vehicle market is dynamic

Australia's new vehicle market is attractive to global car makers given our nation's relatively high standard of living. This is demonstrated through the high number of different car makes and models available in Australia today. Unfortunately, this has not been matched in terms of EV supply given the lack of a globally competitive NVES.

While it is important that a wide range of vehicles, of all shapes and sizes, be available to Australian consumers, the design of a NVES should not be constrained by assuming and/or requiring a static new vehicle market that does not change over time.

The Australian vehicle market is in fact very dynamic, with many changes occurring year to year, as well as over the longer term. Many of the car brands that were available a decade ago are no longer sold in Australia. Equally, many of the most popular car brands today did not even have a presence in our market a few years ago. As a result, we can expect there will continue to be changes in the Australian new vehicle market over the coming decade and beyond, irrespective of the design of the standard.

An NVES should not be designed to protect the existing market share of current car makers. It should not be designed to preserve the exact mix of make and models available today. Such constraints would put at risk the development of a strong and effective NVES and are unrealistic.

The government must set the goalposts and a long-term vision for the country

A NVES should be designed to set the goalposts for the types of vehicles Australian consumers want and deserve, being more low and zero-emission vehicles – including electric vehicles – of all shapes and sizes, and across a wide range of price brackets.

This change will not happen overnight, but it will happen much quicker than some are claiming. We only need to look at how quickly EV uptake has accelerated in markets overseas, including the world's largest car market in China, which has achieved ~31% EV sales in 2023 so far⁶.

The Government must model the emissions reduction that will be delivered by the chosen NVES design, and how this aligns with its floor (minimum) targets of 43% by 2030, and net zero by 2050. This modelling must also clearly outline the projected EV market share under the NVES design, and how this aligns with the state and territory EV targets endorsed in the National EV Strategy.

The Electric Vehicle Council will not support a NVES that does not enable the states and territories to achieve their sales targets, nor will we support national EV sales projections that are not reflected by the overall stringency of the NVES design.

⁶ <http://en.caam.org.cn/index/show/catid/66/id/2047.html>

Exclusions

The exclusion of military, law enforcement, emergency services, agricultural equipment and motorcycles is acceptable, however, the government should support the progressive decarbonisation of these vehicles/fleets in parallel and aim to minimise the opportunity for higher-polluting vehicles entering these fleets to flow through to the general public used vehicle market/fleet. For difficult segments of the fleet, it may be necessary for the government to consider supporting targeted development programs, such as RACQ's proposal to enable the deployment of biofuel range extenders for EVs in edge-case applications.

Beyond the exclusions outlined above, the EVC supports an NVES being applied to all new light vehicles and used light vehicles entering the Australian market for the first time.

FES (or NVES) design features

GENERAL

- Are there any particular FES (or NVES) features that you think we need to take particular care with?

Flexibilities: concessions and bonus credits

The application of any NVES concessions or bonus credits should be avoided as far as possible, and when included must be minimal i.e., capped, phased out as soon as possible, and limited in application, given the significant weakening effect from their inclusion. This is in line with global best practice.

Importantly, if any credits are included in the NVES design, this will necessitate an increase in the stringency of the NVES targets to ensure the standard remains effective, robust and credible. The government must also clearly outline the justification for their inclusion, and how they will support the broader transition to low and zero-emission vehicles.

The Electric Vehicle Council supports the Australian Government's targets of achieving a minimum of 43% emissions reduction by 2030, and net zero by 2050 (compared to 2005). Our organisation is upfront and transparent about our support for these targets, and that we do not expect other sectors of the economy to cut harder and faster to allow global car makers to move slower in the Australian market. Australia needs a globally competitive NVES to ensure transport does its fair share in achieving these targets.

Any proposals for excessive credits should be called out as significantly jeopardising Australia's ability to meet its emission reduction targets.

Starting emissions level limit and approach

GENERAL

- What principles should we consider when setting the targets?

To be globally competitive, an Australian NVES must aim to catch up with other major markets by 2030, but ideally before. Any proposals to only reduce at a rate proportional to other markets will mean that Australia continues to remain behind on NVES targets, and as a result, will continue to be left behind on the supply of low and zero-emission vehicles. Catching up in

a reasonable period is the only credible pathway to achieving a globally competitive NVES that delivers a significant increase in the supply of low and zero-emission vehicles.

It is important to note that we expect the headline targets for the US, EU and New Zealand standards to largely converge by 2030 – if not earlier – depending on the next round of targets adopted in both New Zealand and the US. Australia’s NVES must aim to catch up to these markets by 2030, or ideally earlier, to be globally competitive.

Finally, if the introduction of an NVES is delayed beyond 2024, this will necessitate a more stringent set of targets to deliver a globally competitive standard this decade. This is why the Electric Vehicle Council is advocating for an Australian NVES to be introduced during 2024, even if 2024 (or part there of) is only a reporting year i.e., no penalty applies in the first year.

TECHNICAL

- What should Australia’s CO2 FES (or NVES) targets be?
- How quickly should emissions reduce over what timeframe?
- Should the Australian FES (or NVES) start slow with a strong finish, start strong, or be a straight line or take a different approach?

Provided an Australian NVES adopts fleet average targets that are comparable to major markets like the US and Europe, we know the technology is available to meet those targets. Australia’s NVES targets should be informed by broader design considerations, particularly regarding the inclusion or exclusion of certain flexibilities.

On the basis of developing a globally competitive standard that catches up to the US and EU this decade, the EVC is proposing the Australian Government adopt NVES targets within the following target range (see **Table 1**).

Table 1 Proposed NVES Target Range

| NVES Target Year | EVC Proposed Target Range | | | ICCT World-Class Scenario ⁷ |
|------------------|--|---|--|--|
| | MA Target Range g CO ₂ / km NEDC | MC/NA Target Range g CO ₂ / km NEDC | Fleet Average Range g CO ₂ / km NEDC | Fleet Average Range g CO ₂ / km NEDC |
| 2024 | 131 | 200 | 159 | 137 |
| 2025 | 107 – 117 | 170 – 180 | 132 – 142 | 110 |
| 2026 | 82 – 103 | 145 – 161 | 107 – 126 | 94 |
| 2027 | 71 – 85 | 120 – 140 | 91 – 107 | 79 |
| 2028 | 61 – 70 | 100 – 120 | 77 – 90 | 68 |
| 2029 | 51 – 57 | 84 – 100 | 64 – 74 | 57 |
| 2030 | 43 – 47 | 65 – 80 | 52 – 60 | 50 |
| 2031 | 34 – 37 | 57 | 43 – 45 | 40 |
| 2032 | 26 | 44 | 33 | 30 |

⁷https://theicct.org/wp-content/uploads/2022/12/Australia-FE-standards_final.pdf

Our proposed target range should be considered as the minimum acceptable levels that in our view would be consistent with Australia's emissions reduction targets, and the state/territory EV sales targets outlined in the National Electric Vehicle Strategy.

Note that the upper bound of our proposed target range represents a less stringent target scenario where no concessions/bonus credits are included in the standard, whereas the lower bound of the target range represents a more stringent target scenario where some concessions/bonus credits are included in the standard. This narrow range of targets (<20 g / km) is consistent with the regulatory approach undertaken in other markets, such as the US, to set NVES targets.

There is a trade-off to be had between a simpler scheme with less stringent targets, versus a more complex scheme that includes some concessions/bonus credits. Our proposed NVES target range aims to address both pathways – noting that if additional concessions were included beyond what we are supporting in this submission, this would require more stringent targets below the lower bound of our proposed target range.

To provide a visual representation of our proposed NVES target range, we have plotted both the lower and upper bounds for MA and MC/NA vehicle segments separately (see **Figures 2 & 3**), and compared these to:

- US (standardised to NEDC; assuming their proposed standard to 2032 is adopted)
- New Zealand (standardised to NEDC)
- EU (standardised to NEDC).

As highlighted in the figures over page, we propose that an Australian NVES adopts one of two approaches (in order of the EVC's preference):

1. Under a simpler design, with no concessions/bonus credits, the headline targets initially start slow and then adopt a largely linear reduction to catch up to global targets by around 2030 (by ~2028 for MA vehicles; by ~2031 for MC/NA vehicles).
2. Under a more complex design that includes some concessions/bonus credits, the headline targets also initially start slow but then must follow a stronger reduction in emissions to catch up to global targets by around 2028 (by ~2026 for MA vehicles; by ~2030 for MC/NA vehicles) – to offset the weakening effects of the included concessions.

Critically, under both pathways, the same principle holds that to have a globally competitive NVES, the headline targets must catch up to global markets by 2030, or ideally before.

As long as Australian targets remain higher than global targets our market won't be prioritised for the supply of low and zero-emission vehicles. This would see the Australian Government setting NVES targets that leave Australian households and businesses missing out on new vehicle technology and stuck paying higher fuel bills than consumers in overseas markets that have more ambitious standards.

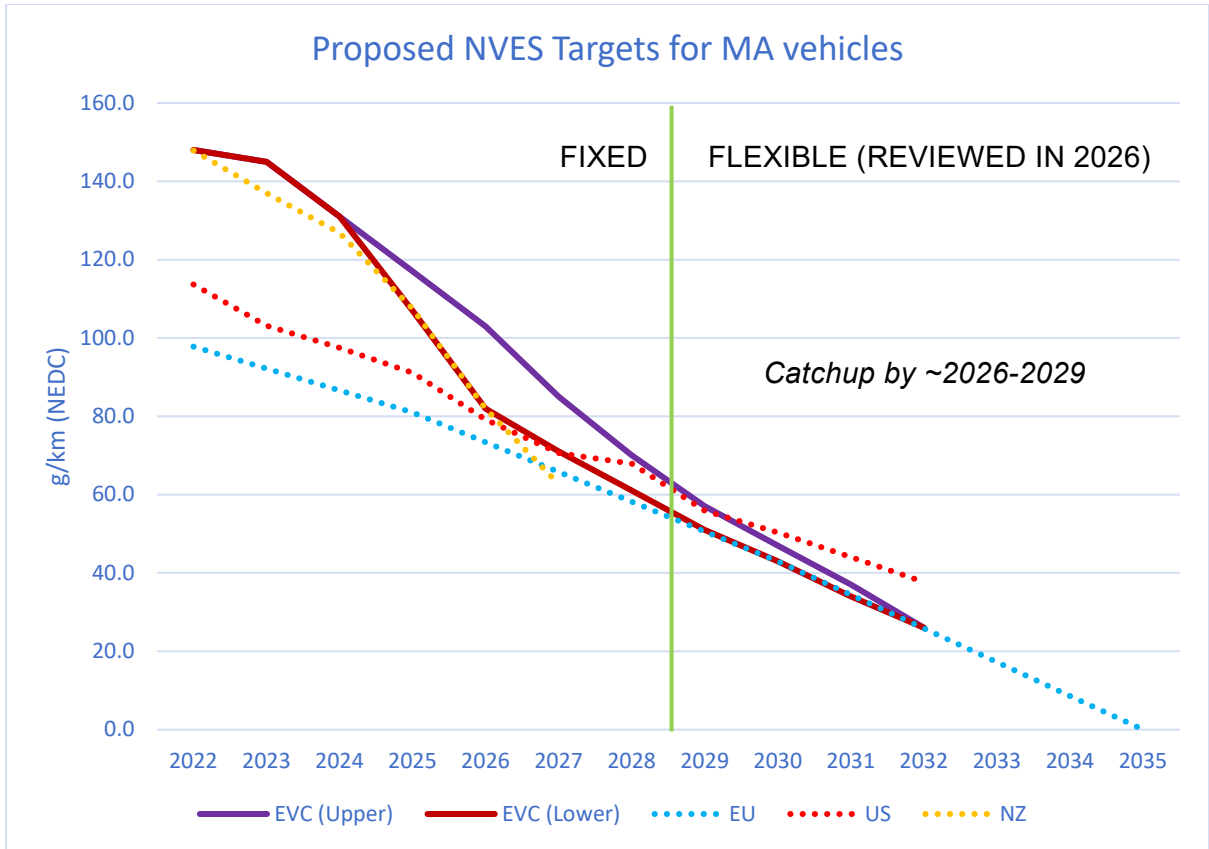


Figure 2 Proposed NVES Target for MA Vehicles

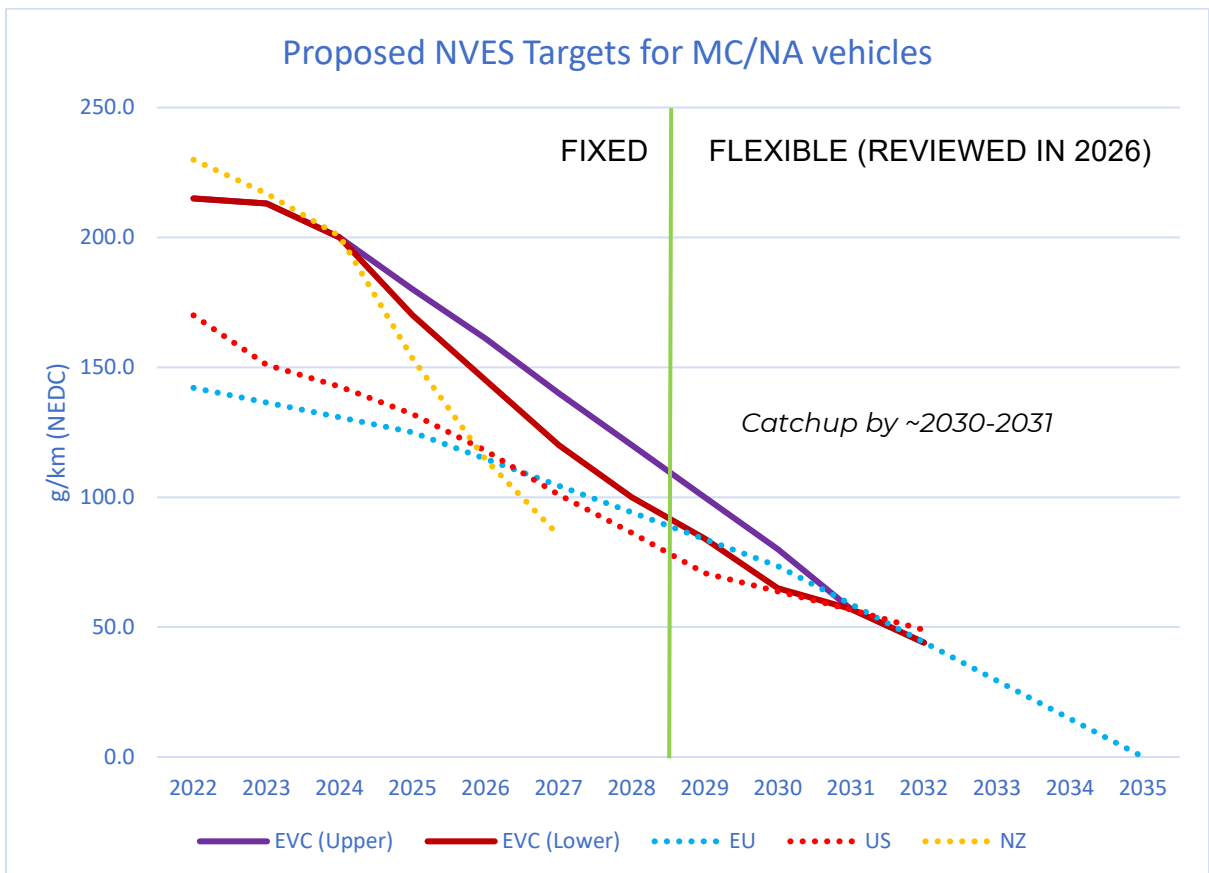


Figure 3 Proposed NVES Target for MC/NA Vehicles

Emissions impact of proposed target range

We expect the government will model a range of NVES target scenarios and outline the alignment of these scenarios with both emission reduction targets and EV sales targets. To provide context for the government in informing these target scenarios, we have outlined below where the EVC's proposed NVES target range approximately sits relative to the four scenarios recently modelled for Australia by the International Council on Clean Transportation (ICCT)⁷ - see **Figure 4**. The graph shows the total tailpipe (tank-to-wheel) emissions for Australia's light vehicle fleet. EVC's proposed target range indicatively leads to a tank-to-wheel CO₂ emissions trajectory that approximately sits between the ICCT's world-class and state-aligned scenarios but follows a weaker pathway in the first few years of the standard.

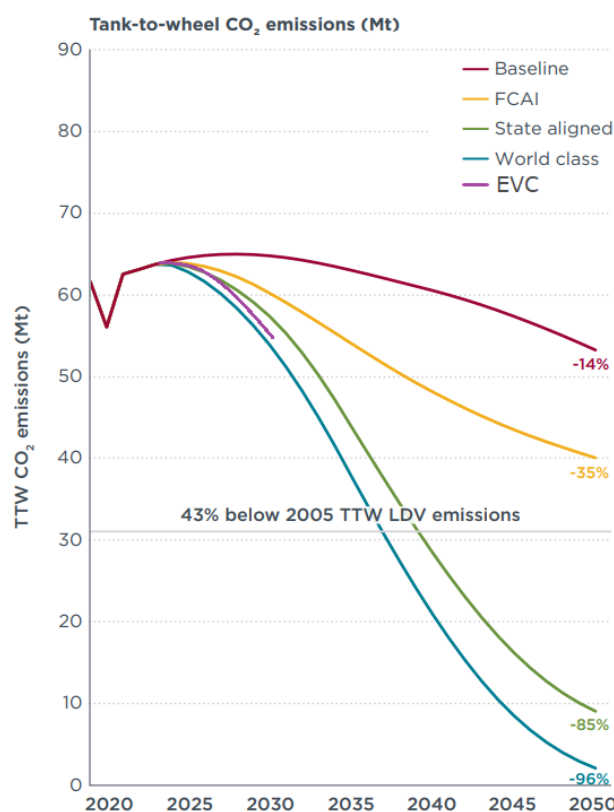


Figure 4 Projected Emissions Trajectory by Scenario. Source: [ICCT](#), [EVC](#).

Note: In the above graph the ICCT's FCAI scenario represents the targets set under the Federal Chamber of Automotive Industries' (FCAI's) voluntary scheme, which may not represent their current position on NVES targets.

As outlined by the ICCT⁷, NVES targets in the range between their state-aligned and world-class scenarios (which would include the EVC's proposed NVES target range) align with approximately a 0% reduction in light vehicle fleet emissions in 2030 relative to 2005. A 43% reduction would be achieved in the late 2030's. This trails the government's economy-wide 2030 emissions reduction target of 43% but would still be a significant improvement over the baseline and FCAI scenarios.

Despite emissions reduction in transport lagging other sectors of the economy, aiming for parity with 2005 emissions levels by 2030 would materially reduce the burden placed on other sectors of the economy to cut harder and faster. It will also result in Australia's light vehicle fleet being well-positioned to work towards our 2050 net zero target.

Also note that even under the ICCT's world-aligned scenario, total tailpipe emissions are expected to remain above zero in 2050, with a 96% reduction relative to 2019 levels. This highlights not only the scale of the task we have a collective responsibility to support, but also the need for further measures over the coming 27 years to increase the sale of new low and zero-emission vehicles and accelerate turnover of Australia's vehicle fleet in line with achieving a 100% reduction by 2050 – at the latest.

We are confident that the own government's modelling will reveal that a NVES that includes targets materially weaker than those proposed in the EVC's submission will not be consistent with Australia's emissions reduction targets and leave no scope for increasing the ambition of these floor (minimum) emission targets over the coming years.

Costs and benefits of proposed target range

Given the importance of understanding both the costs and benefits of introducing a NVES, the Electric Vehicle Council, in partnership with the Climate Council, has commissioned a cost-benefit analysis, which has informed the development of this submission.

The full report detailing this cost-benefit analysis will be publicly released in June 2023, however, we have included key highlights from this modelling work here:

- An Australian NVES that is consistent with catching up to the US and EU this decade is expected to deliver well over \$10 billion in total net benefits by 2035, with a cost-benefit ratio (CBR) of greater than 2.5.
- Even without a NVES, petrol/diesel vehicle prices are expected to continue to increase by around 1.1% p.a. over the coming years. A globally competitive NVES would increase the supply of efficient petrol/diesel vehicles, including conventional hybrids, which could lead to around a 0.3% p.a. increase in average ICE prices. This equates to the price of the average petrol/diesel vehicle increasing by around \$500 in 2027 (less than the cost of the average paint colour option on a new vehicle) and would be more than offset by average fuel savings delivered through a NVES of around \$800.
- A globally competitive NVES will also deliver an increased supply of EVs, and while these vehicles may remain more expensive to purchase on average for the next 5-6 years, the significant fuel and maintenance savings (estimated at around \$12,000 over the life the vehicle) means that in 2027 the average driver will be better off financially within less than two years of owning the vehicle. We expect the average EV will achieve price parity with a comparable petrol/diesel vehicle before 2030 if the government sets globally competitive NVES targets that ensure those cheaper EVs are supplied to Australia.
- The government should be sparing in the application of super-credits/multipliers as these could reduce average fuel and maintenance savings by up to 10%, and environmental benefits by up to 9% by 2035 – when using a multiplier of 2.0 for zero-emissions vehicles that is phased out over the first four years of the scheme. This highlights the importance of ensuring these concessions/bonus credits are limited, and, if included, are targeted at addressing specific gaps in the local market.

In the interest of full transparency, we are happy to share the full model with the government.

Please note, the ICCT has also recently released a summary of costs and benefits of NVES standards from overseas⁸. Consistent with the summary of our findings above, the ICCT similarly highlights that any increase in the cost of manufacturing vehicles due to a NVES is more than offset by fuel and maintenance savings arising from an increase in the supply of more efficient low and zero-emission vehicles, particularly electric vehicles.

Finally, the government should also be careful in noting that an increase in the cost of manufacturing a vehicle to increase efficiency does not directly translate to an equal increase in the vehicle's price. Car makers consider many different factors across their portfolio when setting vehicle prices. It is reasonable to assume that under a globally competitive NVES car makers will be incentivised to accelerate sales of low and zero-emission vehicles to accrue financial benefits from the scheme, and in order to do so will look to minimise the prices of these types of vehicles to further stimulate demand.

⁸ <https://theicct.org/australia-fuel-efficiency-costs-explained-may23/>

Case Study: New Zealand's Clean Car Standard

Background

After many years of lagging on the adoption of a new vehicle efficiency standard (similar to Australia), New Zealand approved its own standard in 2022, known as the Clean Car Standard. This scheme officially started in 2023.

Like the EU standard, the New Zealand standard is split into two sets of targets: one for passenger cars, and one for light commercial vehicles. The New Zealand standard also adopts a mass limit curve that varies targets for each car manufacturer/importer based on the average mass of their new vehicle fleet.

New Zealand has adopted a more stringent set of targets than those proposed by the EVC in this submission. Their targets effectively aim to catch up to the US around 2026 – as shown earlier in **Figures 2 & 3**. Given this ambitious approach, in a nearby country with a right-hand drive market, New Zealand forms a useful case study for understanding the potential impacts of a NVES at a time when there is a significant shift globally towards new low and zero-emission vehicles.

Given New Zealand provides publicly accessible vehicles sales data, we have been able to review emerging trends in their market over recent years, including since the standard officially started this year. We have summarised the highlights of these findings below, noting the EVC plans to release a separate report on this analysis in June 2023. In summary:

- Contrary to some claims, despite the introduction of the Clean Car Standard this year, forecast 2023 annual sales for light vehicles in New Zealand appear largely consistent with recent years (excluding the impact of COVID-19 in 2020).
- Market shares for the top 10 vehicles sold in New Zealand over the past 5 years have remained largely consistent, however, we are seeing a general consolidation in recent years towards more efficient variants, including hybrids, plug-in hybrids and battery electric models.
- Over the past 2 years there has been a significant increase in the sale of low and zero-emission vehicles. This is in part being spurred due to an increase in the supply of these vehicles – as intended under a globally competitive NVES – with 44 new battery electric vehicle (BEV) models and 26 plug-in hybrid electric vehicle (PHEV) models introduced to the New Zealand light vehicle market since 2021.

Impact on vehicle sales

Despite the current high inflation environment, car loans being generally over 10% p.a., and a NVES being implemented, based on new vehicles sales from Jan-Apr, total sales in New Zealand for 2023 appear to be largely consistent with recent years – excluding 2020 during the height of the COVID-19 pandemic (see **Figure 5**).

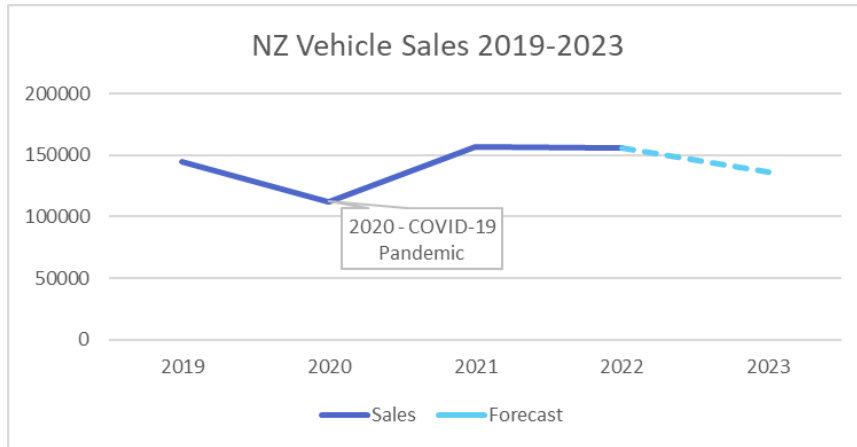


Figure 5 New Zealand Vehicle Sales 2019-2023. Source: [New Zealand Government](#)

Looking at the top 10 models sold in New Zealand over the past five years, market shares have remained largely consistent, with both the Toyota Hilux and Ford Ranger increasing market share in 2023 year-to-date (see **Figure 6**) – post introduction of their NVEs.

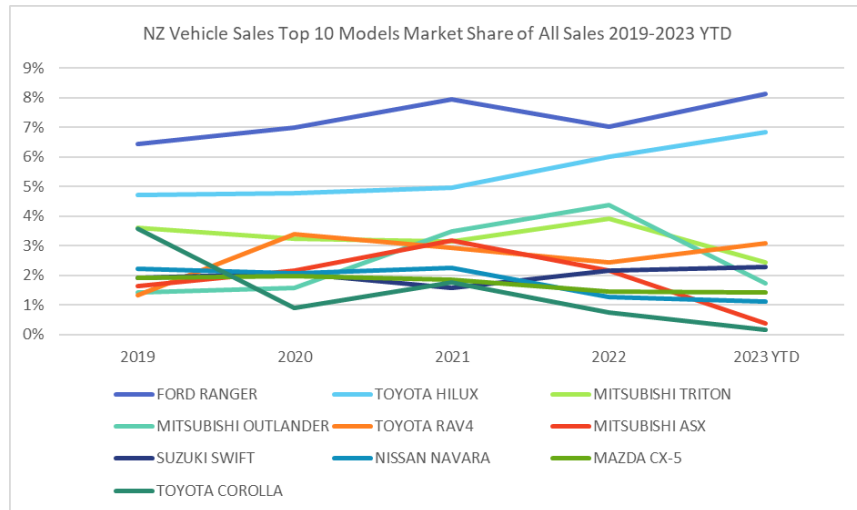


Figure 6 New Zealand Vehicle Sales Top 10 Models Market Share 2019-2023 YTD. Source: [New Zealand Government](#)

Note, given EV sales have only significantly increased in the past two years, there are no electric models in the top 10 for cumulative sales over the past 5 years – shown above. Encouragingly, in both 2022 and YTD 2023, we are starting to see a range of EVs start to enter and rise up the list of the top 10 vehicles sold in New Zealand – see **Table 2**.

Table 2 New Zealand Top 10 Models 2021-2023 YTD

= EV (BEV and PHEV)

| | 2021 | 2022 | 2023 YTD |
|-----|----------------------|-------------------------------|-------------------------------|
| 1. | Ford Ranger | Ford Ranger | Ford Ranger |
| 2. | Toyota Hilux | Toyota Hilux | Toyota Hilux |
| 3. | Mitsubishi Outlander | Mitsubishi Outlander | Toyota RAV4 |
| 4. | Mitsubishi ASX | Mitsubishi Triton | BYD Atto 3 |
| 5. | Mitsubishi Triton | Tesla Model Y | Tesla Model Y |
| 6. | Toyota RAV4 | Toyota Rav4 | Mitsubishi Triton |
| 7. | Nissan Navara | Suzuki Swift | Suzuki Swift |
| 8. | Tesla Model 3 | Mitsubishi ASX | Toyota Corolla |
| 9. | Mazda CX-5 | Tesla Model 3 | Mitsubishi Eclipse Cross PHEV |
| 10. | Toyota Corolla | Mitsubishi Eclipse Cross PHEV | Mitsubishi Outlander |

Despite some claims that the New Zealand NVES would lead to the mass removal of models from their market, we can find no clear evidence of this occurring. While some models have left the market in recent years, we have identified that these changes have primarily been linked to models being withdrawn across several global markets or simply coming to the end of production.

As discussed further below, the New Zealand car market has seen a general consolidation in powertrains, with a shift towards more fuel-efficient variants of vehicle models, and the removal of inefficient variants - as is expected and intended to occur under a globally competitive NVES.

Shift towards fuel-efficient vehicles

Encouragingly, since the announcement of New Zealand’s NVES, and now with its introduction, there is not only a shift in sales, but also an increase in the supply of low and zero-emission vehicle models. The market share of EVs (including BEVs and PHEVs) has increased from 2% in 2019 to 17% in 2023 (YTD) (see **Figure 7**).

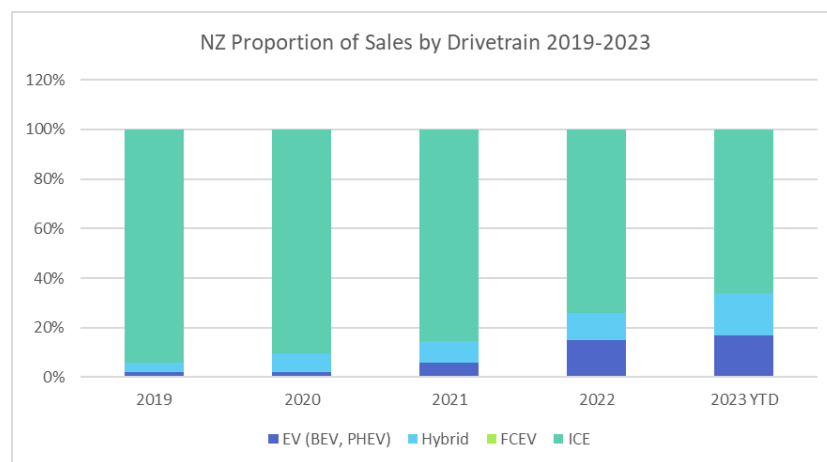


Figure 7 New Zealand proportion of sales by powertrain 2019-2023. Source: [New Zealand Government](#)

This includes a substantial influx of EV models, with 44 new BEV models and 26 PHEV models introduced to the New Zealand light vehicle market since 2021 (see **Figure 8**).

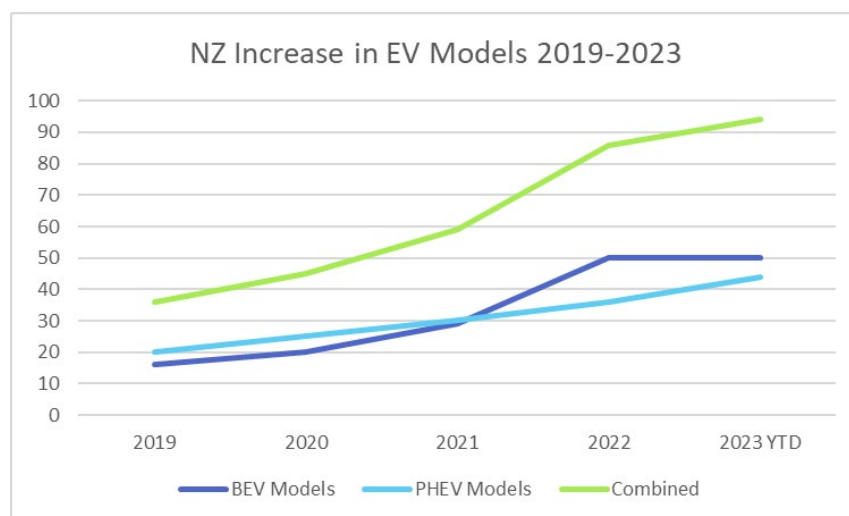


Figure 8 New Zealand Increase in EV Models 2019-2023. Source: [New Zealand Government](#)

Examples of the shift towards low and zero-emission vehicle models

The transition towards more low and zero-emission vehicles in New Zealand, over the past 18 months, is demonstrated by models like the Hyundai Kona, which have seen a progressive shift towards electric and hybrid models (see **Figure 9**), combined with an overall increase in sales relative to 2019.

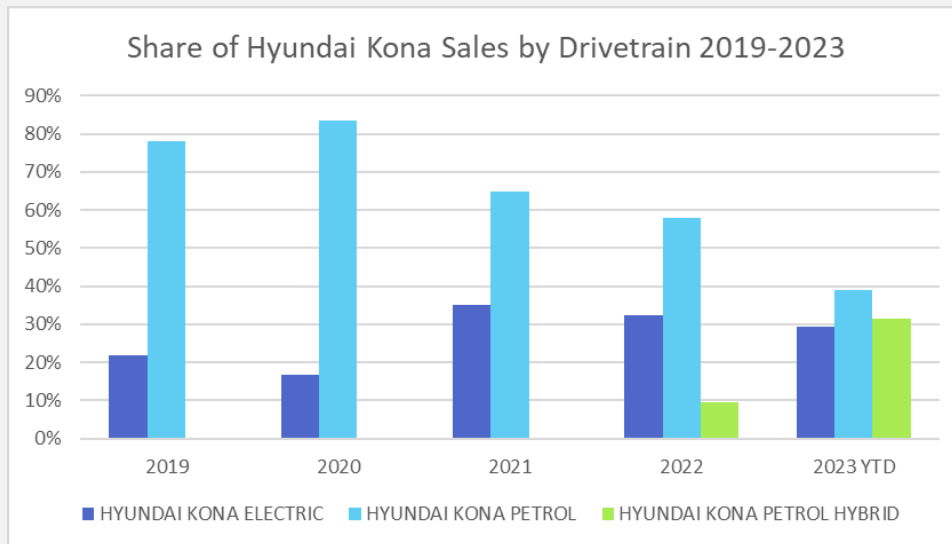


Figure 9 Share of Hyundai Kona sales by powertrain. Source: [New Zealand Government](#)

Similarly, while the diesel variant of the Ford Escape is no longer available, this has been progressively replaced by more efficient variants, with the PHEV variant increasing market share following its introduction in 2021 and seeing significant growth in 2023 (see **Figure 10**).

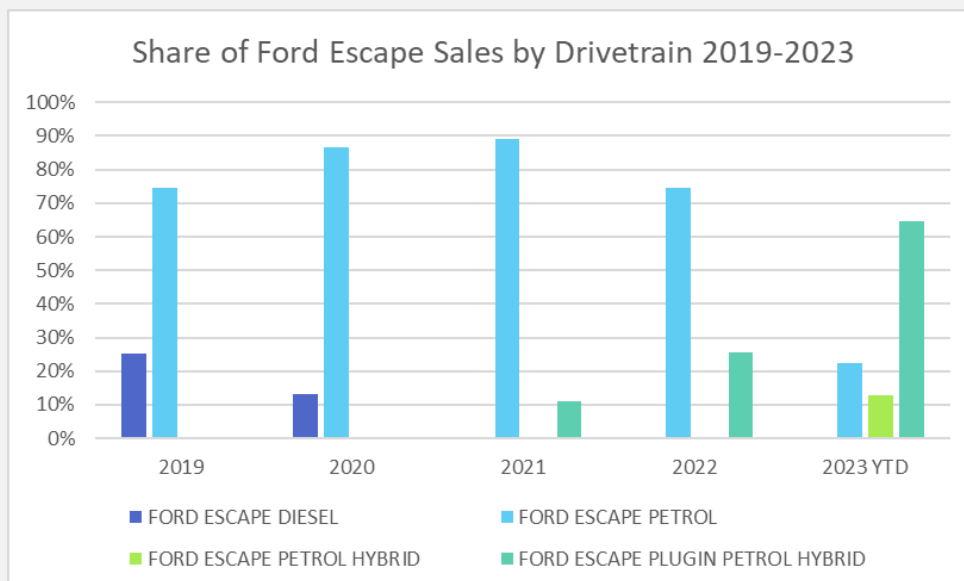


Figure 10 Share of Ford Escape sales by powertrain. Source: [New Zealand Government](#)

The Mitsubishi Eclipse Cross has also experienced a rapid shift towards electrification, with 70% of its sales now comprising PHEVs. This surge in PHEV sales highlights increasing demand for low and zero-emission vehicles, particularly since the announcement that a new vehicle efficiency standard was being developed for New Zealand (see **Figure 11**).

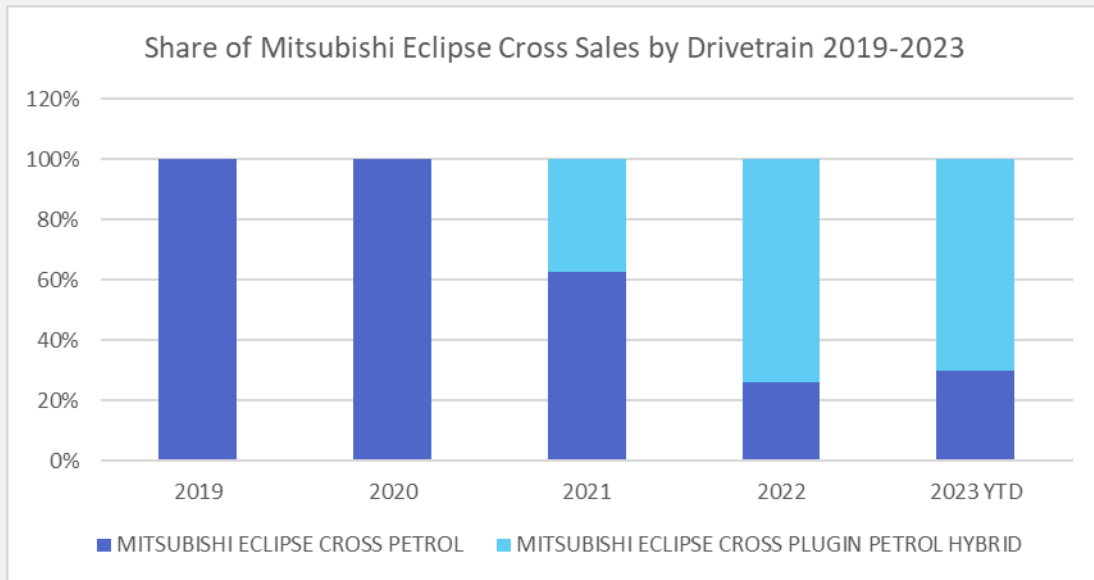


Figure 11 Share of Mitsubishi Eclipse Cross powertrain. Source: [New Zealand Government](#)

The examples above clearly highlight the positive potential outcomes of introducing a globally competitive NVES is a right-hand market, similar to Australia.

Adjustments of limit level

GENERAL

- How many years ahead should the Government set emissions targets, and with what review mechanism to set limits for the following period?
- How should the Government address the risks of the standard being found to be too weak or too strong while it is operating?

The first iteration of the Australian NVES should include targets until at least 2030 to provide a clear indication to the market of the government’s vision. We have included a target range until at least 2032 in this submission to help inform the government’s development of the standard, including the medium-to-long term trajectory.

The NVES should be reviewed twice before 2030. The scope of this regular NVES review should consider and include:

- Assessment of any concessions/bonus credits included in the standard.
- Progress of the market against emission reduction targets and EV sales targets, including the requirement consider evidence from the Climate Change Authority, as well as implications for Australia’s Nationally Determined Contributions, and our other obligations under the Paris Climate Agreement.
- Future financial penalty rates.
- Consideration of future targets, noting that targets in the immediate three-year period (including the year of review) should not be varied to maintain certainty for the market. See **Table 333** for an indicative example of this proposed target review structure.

Table 33 Proposed Target Review Structure

| Review Year | NVES Target Period | Fixed targets (do not change in review) | Flexible targets (to be set/reviewed) |
|-------------|--------------------|--|--|
| 2023 | 2024-2030 | 2024, 2025, 2026, 2027, 2028 | 2029, 2030 |
| 2026 | 2026-2033 | 2026, 2027, 2028 | 2029, 2030, 2031, 2032, 2033 |
| 2029 | 2029-2036 | 2029, 2030, 2031 | 2032, 2033, 2034, 2035, 2036 |

The government should maintain a watching brief on how other markets globally are responding to emerging trends.

A commitment to the underlying principle that Australia must catch up to other major markets by 2030, or ideally before, to have a globally competitive standard, will help to guide Australia’s trajectory to convergence with other markets. From that point, the aim should be to keep in line with other markets. In our view, this is the definition of what a globally competitive NVES looks like for Australia.

Attribute-based emissions limit curve

TECHNICAL

- Should an Australian FES (or NVES) adopt a mass-based or footprint-based limit curve?
- If Australia adopts a mass-based limit curve, should it be based on mass in running order, kerb mass, or another measure?
- Should Australia consider a variant of the New Zealand approach to address incentives for very light and very heavy vehicles? If so, noting that new vehicles that weigh under 1,200 kg are rare, where should the weight thresholds be set?

The EVC supports the adoption of a mass-based limit curve. This has been the approach adopted by industry under the existing voluntary standard. It is the same approach used in New Zealand and the EU, and in our view, would help to accelerate the timeline for the introduction of the standard given it is a known and understood metric. In line with this, we specifically support the use of mass in running order.

The EVC supports the approach adopted in several other markets of setting lower and upper thresholds of mass limit curves. Specifically, we recommend adopting a lower threshold of 1,400 kg for all vehicle categories, an upper threshold of 2,000 kg for MA and an upper threshold of 2,200 kg for MC/NA. This approach will help to minimise distortions to the market while still providing flexibility around vehicle size within a more constrained set of values. An alternative approach to upper/lower thresholds would be to adopt flatter limit curves that are similar across both sets of targets.

Multiple targets

TECHNICAL

- Should an Australian FES (or NVES) adopt two emissions targets for different classes of vehicles?
- Is there a way to manage the risk that adopting two targets erodes the effectiveness of an Australian FES (or NVES) by creating an incentive to shift vehicle sales to the higher emission LCV category?
- Is there anything else we should bear in mind as we consider this design feature?
- Are there other policy interventions that might encourage more efficient vehicle choices?

While a single target is recognised as the gold standard for an NVES, the EVC is supportive of two sets of targets, with passenger cars (MA) following a more stringent set of targets, and light commercial vehicles (NA) following an initially weaker set of targets. This approach recognises these segments are likely, at least initially, to decarbonise at different rates. Importantly, the overall intention should be for these two sets of targets to converge in the mid-2030s – at the latest.

There are a variety of views on whether off-road SUVs (MC), which represent approximately 13% of Australia's light vehicle market YTD 2023 (13.9% in 2022), should be grouped with MA or NA vehicles under a NVES.

There are valid concerns about MC vehicles being subject to less stringent targets if grouped with NA vehicles, and thereby an incentive existing to increase the market share of this vehicle segment to avoid NVES penalties. Conversely, many MC vehicles share chassis/production lines with NA vehicles, and there are fewer zero-emission options currently available in these segments. As such, there is also a valid argument to have MC grouped with NA.

The EVC is supportive of off-road SUVs (MC) being grouped with light commercial vehicles (NA), in line with Australia's current voluntary standard, however, only on the basis that there are conditions applied under the standard that limit a shift towards larger, less efficient vehicles in the Australian new vehicle market. Such an outcome would erode the effectiveness of the standard and should not be accepted by the government.

To help avoid this outcome, we recommend the government consider the following measures as part of the NVES design:

- a) Incorporate a safeguard mechanism into the NVES review (every 3 years) that requires the MC/NA targets to be reduced by at least an additional 15 g CO₂ / km per year if the combined MC/NA Australian market share exceeds 40% (noting the market share for MC generally sits around 12-15% and around 22-25% for NA).
- b) The requirements of vehicles being complied under the MC category should be tightened to ensure only genuine off-road SUVs – which represent a small proportion of the Australian new vehicle market – are eligible for compliance in this segment.
- c) The difference between the two sets of NVES targets (MA vs MC/NA) should be minimised to reduce the incentive to sell more vehicles under the weaker set of targets.

Importantly, any proposal to adopt a significantly weaker set of targets for MC/NA relative to MA should be rejected by the government given a wide gap between these sets of targets may distort the market and encourage greater supply of larger, less efficient, and less safe vehicles into Australia. This could occur from both incumbent car makers, as well as new market entrants that may look to capitalise on this potential flaw in the standard's design.

Other markets, like the US, have proven that ambitious standards can be adopted, while still supplying a broad range of vehicle sizes – including many models that are much larger than those most commonly purchased in Australia. What an Australian standard must do is encourage a greater supply of more efficient vehicles of all shapes and sizes so that more households and businesses can have the low and zero-emission model choices that enable them to capture the associated fuel cost and emissions savings.

Credit banking, transferring and pooling

TECHNICAL

- To what extent should the Australian FES (or NVES) allow credit banking, transferring and/or pooling?
- Should credits expire? In what timeframe?

Accruing credits for beating annual targets is a critical feature of a successful NVES and provides a clear commercial opportunity for those car makers that increase the supply of low and zero-emission vehicles to the market to capitalise on the financial benefit available thanks to the standard.

The EVC is supportive of the banking, trading and pooling of surplus credits being allowed under an Australian NVES. These options provide reasonable flexibility to car makers in meeting NVES targets from year to year.

Individual car makers should be free to privately negotiate conditions of trading and pooling with other car makers, and while pooling arrangements must be declared to the government, the commercial terms of buying/selling credits should not be required to be disclosed. It is worth noting that some of our members have shared, based on their experience with standards overseas, that the trading of credits is generally transacted at a value of around 40 to 50% of the standard's penalty rate.

Carry-over periods of surplus credits should also be allowed to provide flexibility to car makers but must be restricted in duration to not significantly delay emissions reduction. We support a shorter carry-back period, compared to the carry-forward period. The EVC suggests that surplus credits should be allowed to be carried forward for three years (maximum) – aligned with the NVES review period every three years, but only backward for two years (maximum).

Multipliers for LZEVs

TECHNICAL

- Should an Australian FES (or NVES) include multiplier credits for LZEVs?
- If so, what level should the multipliers be, should they apply equally to both classes of vehicle (if adopted) and for how long should they apply?
- Should the total benefit available from these credits be capped?
- If not, should the Government consider another approach to incentivising the supply and uptake of LZEVs?

In general, the EVC would prefer a simpler NVES design that has minimal concessions/bonus credits to increase the transparency of the scheme for both car makers and consumers. A simpler NVES design will also enable the adoption of a less stringent set of annual targets while still supporting the government's emission reduction targets.

If concessions/bonus credits are included in the Australian NVES design, it is the EVC's view that these credits should be minimal, capped at 15 g CO₂ / km (maximum), and progressively phased out in the first 4 to 5 years of the standard operating (maximum) or in line with when the combined battery electric vehicle (BEV), hydrogen fuel cell vehicle (HFCV) and plug-in hybrid electric vehicle (PHEV) market share is expected to reach 20% of light new vehicle sales – whichever comes first.

In the case where concessions/bonus credits are included, the EVC is only supportive of technology super-credits/multipliers in limited situations where there is clear justification by the government for their inclusion in terms of supporting the supply of specific types or categories of low and/or zero-emission vehicles.

Additionally, as noted previously in this submission, the inclusion of such credits will necessitate the adoption of stronger NVES targets to offset their weakening impact.

If technology super-credits/multipliers are included, these should be limited to:

- (i) BEVs, HFCVs for MA vehicles (maximum 2.0)
- (ii) BEVs, HFCVs (maximum 2.0) at a level greater than PHEVs (maximum 1.5) for MC/NA vehicles
- (iii) Strong hybrid technology, or other technologies that reduce carbon emissions by at least 20% relative to the average emissions rate for MC/NA vehicles could also receive super-credits (maximum 1.5). This incentive would only be available if at least 10% of all vehicles produced of that model, by that manufacturer, that are sold in Australia in that calendar year, meet this criterion. This aligns with the approach taken in the US NVES i.e., the so-called pickup truck or ute incentive.

Car makers cannot claim super-credits for (iii), at the same time as (ii), for the same vehicle; these should be mutually exclusive to prevent double-dipping.

Total super-credits should be capped at 15 g CO₂ / km across the three categories outlined above. Note this cap is significantly more generous than the cap of 6 g CO₂ / km adopted under the US NVES, which will remain in place until US super-credits are phased out of their standard at the end of 2024.

The government should also carefully consider whether technology super-credits should be further limited to vehicles within certain price brackets to specifically encourage the supply of more affordable models that meet specific technology criteria. Limited super-credits targeting local content could also be considered as the local EV value chain expands.

Off-cycle credits

TECHNICAL

- Should an Australian FES (or NVES) include off-cycle credits for specified technologies?
- If so, should the per-vehicle benefit be capped and how should an Australian FES (or NVES) ensure that off-cycle credits deliver real emissions reduction?
- Should the Government consider any other form of off-cycle credits for an Australian FES (or NVES)?

The EVC does not support the inclusion of off-cycle credits in an Australian NVES. These types of credits are being phased out in major global markets due to their weakening impact. They increase the complexity of the standard, reduce the transparency of tailpipe emissions reduction, and overall, result in a much greater burden for the government in administering the scheme.

Additionally, many of the off-cycle features that some will seek to receive bonus credits for are already standard features in many Australian vehicles, and therefore, the inclusion of this flexibility provides free credits for no marginal improvement in vehicle efficiency.

Some may also argue that car makers will de-content cars supplied to Australia if off-cycle credits are not included in the standard design, however, as an industry body representing several car makers we want to make it clear that this does not reflect how our members treat their customers and reject any assertion to the contrary.

Air-conditioning refrigerant gas credits

TECHNICAL

- Should an Australian FES (or NVES) include credits for using low global warming potential air conditioning refrigerants, and if so, for how long should this credit be available?
- Could the issue of high global warming potential refrigerants be better dealt with by another policy or legislative framework?
- If such a credit is permitted, should the emissions target be lowered to ensure consumers realise the fuel cost savings and EV availability benefits of a FES (or NVES)?

Similar to off-cycle credits, the EVC does not support the inclusion of air-conditioning credits for largely the same reasons listed above.

The EVC are supportive of high global warming potential refrigerants being banned under separate legislation. These gases have no place in new vehicles, and therefore, there is no valid justification for their inclusion in an Australian NVES.

Bans on the use of those refrigerants in Australian products should continue to progress as soon as possible given the significant risk they pose to increasing Australia's emissions.

When should a FES (or NVES) start?

TECHNICAL

- When do you think a FES (or NVES) should start?
- How should the start date interact with the average annual emissions ceiling?

It is imperative that an Australian NVES start as soon as possible to provide more time for our new vehicle market to transition to predominantly zero-emission models. The EVC is supportive of the government accelerating the development of an Australian NVES so that legislation can be passed in 2023, and the standard can begin in early 2024.

If this timeline slips, the EVC still supports the government in introducing the standard part-way through 2024 – as there is no genuine reason to our knowledge as to why the standard could not begin at any time during the calendar year.

The later the start date, the higher the rate of emissions reduction that will be required to have a globally competitive Australian NVES this decade, and still align with the government's legislated emissions reduction targets.

To support and accelerate the introduction of a NVES the government should consider setting 2024 (the first year, or part thereof), as a reporting year only, with no penalty applied, to allow both car makers and the government to stand up and fine-tune reporting requirements, and overall compliance with the new standard. This first year could allow for the accrual of credits, despite no penalty being applied.

TECHNICAL

- Should the Government provide incentives for the supply of EVs ahead of a FES (or NVES) commencing? If so, how?

Supply

Unique Australian standards are a significant regulatory barrier that increases the cost and burden of importing new low, and zero-emissions vehicles to our market. As a result, unique Australian standards further restrict and delay the supply of these new vehicles to our market.

The Australian Government should commit to updating the Vehicle Type Approval requirements in Australia to allow the direct acceptance of type-approved electric vehicles from global major markets in full volume supply under the Road Vehicle Standards Act (RVSA). This reform will help car makers to meet more stringent NVES targets, while still maintaining high vehicle safety standards that apply in similar markets, like the EU and UK.

Demand

In addition to measures to further increase the supply of low and zero-emission vehicles, the government should consider the future introduction of incentives that support the purchase of these vehicles.

At this point in time, demand for EVs in Australia is far outstripping supply. As a result, further incentives – in addition to what is already offered by the federal, state and territory governments – is likely to only have a marginal impact in the short-term.

Based on discussions with some of our members, we expect that within the first one to three years of the NVES operating we will start to see an increase in supply, and at such a time, targeted incentives should be considered.

These incentives could specifically target:

- Farmers
- Tradespersons
- Low-to-middle-income households, and
- Regional and remote communities.

These targeted incentives could be in the form of:

- Upfront subsidies
- Zero interest loans
- A full/partial GST discount, in cooperation with state and territory governments.

In the short term, the government should continue to maintain its focus on accelerating the adoption of EVs in Australian fleets to create a strong, second-hand EV market through the on-selling of these vehicles, so that affordable EV options can soon be available to all Australians. Measures to accelerate fleet turnover of EVs, such as limiting fleet incentives to a 3 to 4-year period of ownership, should be carefully considered.

The government should also continue to co-fund the rollout of charging infrastructure to keep pace with growth in the national EV fleet and set national infrastructure targets to provide confidence and secure further private investment in the national charging network. As outlined in our submission to the National Electric Vehicle Strategy, the EVC recommends aiming for multi-bay public fast charging sites every 70 kilometres along major arterial roads, and every 5 km in metro areas.

Finally, once the NVES is established, in the lead-up to the first standard review in 2026, the government should consult with industry and key stakeholders to discuss the potential future introduction of a feebate-style scheme, and potentially other measures, that would help to accelerate the turnover of the national vehicle fleet, increase new vehicle sales, and further encourage a shift towards low and emission vehicle models. As discussed earlier, an increase in fleet turnover will be critical for achieving our emission reduction targets since we currently have a light vehicle fleet totalling approximately 18 million vehicles, but only sell around 1 million new vehicles each year, meaning it would take at least 18 years at 100% zero-emission vehicle sales to achieve a 100% zero-emission light vehicle fleet – a necessary milestone for achieving the government’s net zero target by 2050.

Penalties for each gram per kilometre

TECHNICAL

- What should the penalties per gram be? Would penalties of A\$100 per gram provide a good balance between objectives? What is the case for higher penalties?

A mandatory penalty should apply under an Australian NVES. The EVC supports the adoption of a \$100 per gram penalty (minimum), as this appears to be an appropriate rate for striking a balance between objectives, relative to the penalty rates adopted by other major markets globally.

A rate significantly weaker than global markets would again reduce the competitiveness of an Australian NVES. The penalty rate should be examined as part of the three-year NVES review process that was outlined earlier in this submission.

It should be noted that it is unusual for a car maker to pay a penalty to the government under most standards globally given they generally will opt for the more cost-effective pathway of buying credits from competing car makers in the local market.

We have been advised by some of our car maker members that in their experience with overseas standards, this trading generally occurs at a rate of around 40-50% of the penalty rate.

For this reason, the government must be careful in ensuring the penalty rate is set high enough to account for this ability of car makers to trade at a significantly discounted rate – assuming trading is built into the standard, which the EVC is supportive of.

In the unlikely situation where penalty revenue is raised through an Australian NVES, the standard legislation should state that these funds must be directly hypothecated to fund the transition to low and zero-emission vehicles – at the discretion of the responsible Minister.

Small volume and niche manufacturers

TECHNICAL

- What if any concessional arrangements should be offered to low volume manufacturers and why? If so, how should a low volume manufacturer be defined?

In consultation with our members, the EVC sees no reason to provide an exemption to small-volume and niche car makers. Generally, these car makers sell luxury vehicles, with higher profit margins, and should not be exempt from the responsibility that all global car makers have to reduce transport emissions in Australia, consistent with achieving the government's legislated emission reduction targets.

If an initial exemption is provided, it should be temporary, short-term and applied at a threshold of no more than 100 annual vehicle sales.

Information that suppliers will need to keep and supply

TECHNICAL

- The Government is keen to ensure any regulatory administrative costs are kept to a minimum while ensuring that outcomes are robust. What should the department keep in mind in designing the system for suppliers to provide information and in relation to record keeping obligations?
- What should the reporting obligations be? What information should be published and how regularly?
- How long should suppliers keep required information?
- Is a penalty of 60 penalty units appropriate for this purpose?

Independent source of vehicle sales data

The Australian Government must establish an independent vehicle sales data collection system immediately. An independent source of this data is not only critical to the integrity of a NVES but is important for informing the government's broader EV and net zero transport policies, as well as informing its emissions inventory reporting.

The National Transport Commission has been unable to publish an accurate average new vehicle emissions rate for Australia since 2019 due to the lack of an independent source of this data. The government must move swiftly to address this issue and bring Australia in line with many other countries, like New Zealand, that have independent sources of vehicle sales data, and in many cases, make this data publicly available for research and analysis.

In standing up a system for government to collect vehicle sales data, additional modules should be considered for administering a NVES. Australia should look to New Zealand as an example of a country that has recently launched a similar system to support its NVES – known as the Clean Car Standard System⁹.

While there are differences between Australia's state/territory-based vehicle registration system versus New Zealand's national vehicle registration system, the broader features included in their system are useful for informing the process and structure of an Australia vehicle sales data collection system. In simple terms, this system should:

1. Enable car makers to upload vehicle sales data directly to the government in a similar format to that which they already prepare.
2. This uploaded data can be verified against vehicle registration data, or other data sources e.g., Register of Approved Vehicles (RAV), to confirm validity.
3. Car makers should have the opportunity to correct any errors, or review any discrepancies flagged via the verification process.
4. In the process of uploading new vehicle sales data to the system car makers should be provided with the tools to track their individual progress against NVES targets.
5. The government should also have visibility of how individual car makers are tracking against NVES targets, as well as how the market as whole is tracking. This will assist the government in being able to dynamically develop complementary policies to support the uptake of low and zero emission vehicles.

⁹ <https://www.nzta.govt.nz/assets/resources/clean-car-standard-ccs-user-guides/Clean-Car-Standard-system-Vehicle-management-guide.pdf>

The above represents a fully auditable approach that will ensure the integrity of a NVES is preserved, independent of commercial interests.

In the EVC's view there is no reason to delay the development of a system aligned with the principles outlined above, and this work should start as soon as possible. There may even be the possibility to procure support from New Zealand to accelerate the development of an Australian system utilising the building blocks they have in place for their data collection and reporting system.

Any specific rules that may be built into the final NVES design will not change the need to collect vehicle sales data to inform broader EV/transport policy and can be built into the tools used by car makers and the government to track progress against annual NVES targets once these design rules have been finalised.

Reporting requirements

Individual car makers should report sales to the Department (the regulator) on a monthly basis, using the previously described data collection system, so the government can track progress against NVES targets and to assist in informing national greenhouse gas emission inventory tracking and reporting.

Reporting of monthly sales should be due to the regulator 14 days after the last day of that month.

This reporting should use a format aligned with current industry reporting to minimise the need for car makers to stand up new systems.

Reporting should occur directly between car makers and the regulator for compliance and accountability purposes.

If individual car makers pool together to meet an annual target this must be reported to the Department by February 28th in the following year.

Car makers will be required to retain evidence of annual sales for at least five years (or the duration that credits can be carried backwards plus an additional three years) to provide sufficient time for auditing.

Penalties

In the unlikely circumstances where penalties are accrued, payments must be made to the Department by June 30th in the calendar year following the year in which they were accrued e.g., penalties accrued in 2025 would need to be paid by June 30, 2026.

These funds must be expended on supporting the adoption of low and zero-emission vehicles within the two following financial years.

Finally, the EVC believes that 60 penalty units is an appropriate civil penalty for failure to keep records required under an Australian NVES.

Other regulatory mechanisms

TECHNICAL

- Should the regulator be the department? What other options are there?
- How should the regulated entity be defined in an Australian FES (or NVES)?
- What reasons are there to depart from the standard regulatory tool kit for an Australian FES (or NVES)?

The EVC believes it is appropriate for the Department to act as the regulator of an Australian NVES and does not see the need to establish a separate regulatory authority. This would also appear to be the quickest pathway to launching a NVES in Australia. Additionally, we do not see any reason to depart from the standard regulatory tool kit.

TECHNICAL

- Should an Australian FES (or NVES) use WLTP test results in anticipation of the adoption of Euro 6 and if so, what conversion should be applied to existing NEDC test results, or how might such a factor be determined?

It is critical that the introduction of an Australian NVES is not delayed, given inaction will mean that Australia falls further behind major global markets in transitioning to a zero-emission vehicle fleet. Such an outcome seriously jeopardises Australia's chances of achieving our legislated emissions reduction targets.

As such, the EVC supports Australian NVES targets first being established using the NEDC test cycle - given this is the current test cycle adopted in Australia – but with the intention to switch to WLTP as soon as this test cycle is adopted under Australian Design Rules. This approach will avoid further delays in the introduction of this critical regulatory lever.

In recognition of Australia likely adopting Euro 6 in the coming years, and in turn, the associated shift to the WLTP test cycle, NVES targets for the year 2027 onwards should be updated to WLTP as part of the proposed NVES review in 2026. There is precedent for this approach, with the EU shifting from NEDC to WLTP part-way through their existing NVES for the year 2021 onwards.

Confirmation of the process for converting from NEDC to WLTP should be finalised by 2025 to provide certainty to the market. We recommend the Australian government engage independent experts to undertake rigorous analysis to develop suitable test cycle conversion factors for our market - similar to the approach the New Zealand Government has recently undertaken with the International Council on Clean Transportation (ICCT)¹⁰.

During the transition period of the standard, it may be necessary to specify both NEDC and WLTP targets. This dual test cycle approach could also potentially be adopted from the beginning of the standard; however, the government should be mindful of creating loopholes where meeting targets under one test cycle becomes significantly easier than the other test cycle.

¹⁰ https://www.transport.govt.nz/assets/Uploads/NZ-conversion-factor-report_20210302_final-1.pdf

In conjunction with the implementation of the WLTP test cycle, the government should also consider opportunities to require future vehicles to be fitted with on-board fuel and energy consumption monitors (OBFCM), similar to the approach taken in the EU, in order to collect data that monitors the gap between real-world emissions and test cycle emissions rates¹¹.

In the EU, OBFCM has been mandatory for all new passenger vehicles since January 2021, and small light commercial vehicles since January 2022.

The availability of this data could be particularly important for understanding real-world emissions rates of conventional hybrid vehicles and plug-in hybrid vehicles (PHEVs).

The legislation for the standard may need to consider how to treat significant derivations between real-world and test-cycle figures – if they emerge.

We suggest the government consider introducing a mandatory requirement for the implementation of OBFCM in line with the first proposed NVES review in 2026.

¹¹ <https://theicct.org/wp-content/uploads/2022/02/fs-obfcm-accuracy-verification-feb22.pdf>

