
FCAI Submission in response to:

*Cleaner, Cheaper to Run Cars:
The Australian New Vehicle Efficiency Standard.*

Consultation Impact Analysis



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1. Executive Summary

The Federal Chamber of Automotive Industries (FCAI) strongly supports the introduction of a fuel efficiency standard (FES) into the Australian market.

The FCAI has consistently advocated for a balanced and realistic FES that accommodates consumer vehicle preferences, does not result in unaffordable price hikes for new vehicles, and achieves meaningful emissions reduction targets. The FCAI supports the introduction of a FES on a 'modest start, fast finish' basis to achieve required out-year emissions reductions while accommodating model development and the life cycle of vehicles in order to avoid sudden consumer price shocks.

To be effective, a FES must account for the unique characteristics of the Australian market. The Australian automotive industry represents less than 1.5% of the global industry, and all new vehicles sold in Australia are imported. More than 70% of global automotive markets are made up of left-hand drive (LHD) vehicles. Australia is very much a 'technology taker', rather than a 'technology creator', and so must work (as a minor player) to develop and implement a bespoke local automotive plan in an industry marked by extended time frames, and where product allocation decisions are made based on a global product strategy.

Australian consumers overwhelmingly purchase sports utility vehicles (SUVs) and light commercial vehicles (LCVs) as the vehicles most suited to their work and lifestyle needs. In 2023, SUVs and LCVs accounted for nearly 80% of sales and comprised all the top ten vehicles sold throughout the year.¹ Right hand drive (RHD) battery electric vehicle (BEV) models in the segments demonstrably preferred by Australian consumers (and at a price point aligned to current choices) do not exist in any market in the world at this time.

It is disappointing that after many years of inactivity by successive Governments, it has opted to impose a FES with extremely aggressive targets and severe penalties, to be effective on very short notice (1 January 2025). The FCAI opposes the Government's preferred New Vehicle Efficiency Standard (NVES) Option B as currently drafted. The FCAI believes that Option B will cause significant disruption for large sections of the industry, and will result in less choice and higher retail prices for Australian consumers. Implementation of the proposed targets on the proposed timeline with the proposed penalties will have a disastrous commercial impact on many Original Equipment Manufacturers (OEMs) and may result in the exit of some models from the Australian market, if not the withdrawal of some OEMs entirely. Australian consumers will have less choice in their selection of available vehicles. Increased OEM costs will undoubtedly be passed through to consumers as such costs will be substantial for many OEMs. If increased costs and lack of choice result in consumers retaining their aging vehicles for longer periods, the emissions reduction objectives of the Government will not be achieved.

The FCAI is concerned that much of the analysis and assertions made throughout the Government's paper, *Cleaner, Cheaper to Run Cars: The Australian New Vehicle Efficiency Standard. Consultation Impact Analysis* (CIA) which inform the selection of Option B, is inaccurate. It is of concern that the Government has not released its underlying research for consideration and comment by stakeholders. In contrast, information provided by the FCAI throughout this submission is based on research and data compiled by S&P Global, as well as other data sources including industry leading VFACTS data.

FCAI Recommendation

The FCAI urges the Government to reconsider the timing, structure, and trajectory of its proposed FES. The FCAI stands ready to continue to work productively with Government to attain a more effective outcome that will achieve the required emissions reductions and that will support consumers in terms of the choice and cost of vehicles in the Australian market, but that will not adversely impact the automotive industry. To this end, the FCAI has outlined some of the key elements the Government should consider in formulating a revised, but workable and sustainable FES in the section titled *FCAI's Preferred Option* set out later in this submission. These elements include adjustments to the commencement date, the classification of vehicles, annual emissions targets, the application of penalties, and the availability of credits (including multipliers) and incentives.

¹ VFACTS 4 January 2024

2. Introduction

The FCAI is pleased to respond to the request for submissions in relation to the CIA.

The FCAI is the peak industry body representing the Australian importers and distributors of passenger motor vehicles, SUVs, LCVs, motorcycles and Off Highway Vehicles. FCAI members supply about 99% of new vehicles to the Australian market each year, with in excess of 50 brands offering more than 350 models of light vehicles into the Australian market.

Members are listed at <https://www.fcai.com.au/about/members>.

3. FCAI Support for Fuel Efficiency Standard

The FCAI and its members support the introduction of a FES into the Australian market.

The position of the FCAI in relation to the implementation of a FES has been, and remains, that the FCAI strongly supports a comprehensive approach to addressing motor vehicle emissions that includes fuel quality standards, the introduction of Euro 6 and the implementation of a challenging, but realistic, achievable and market relevant CO₂ standard.

As noted in the CIA, successive Governments have failed to act to implement a FES.² This policy failure resulted in the FCAI and its members implementing a Voluntary CO₂ Emissions Standard in 2020. This voluntary standard was regarded by industry as an interim measure which set out industry and brand CO₂ emissions reduction targets to be achieved by 2030. It was the intention that the voluntary standard would end with the introduction of a legislated FES. The voluntary standard was considered a mechanism through which industry could take some action while continuing to work with Government to develop a national, legislated standard that was ambitious but achievable for the Australian market.

The FCAI believes that the following elements are key to the design and implementation of a FES that is fit for purpose, meets policy objectives, and responds to the affordability and mobility needs of Australian consumers:

- the FES should be technology neutral. As the sector moves to decarbonisation, a mix of hybrid (HEV), plug-in hybrid (PHEV), BEV, hydrogen and efficient internal combustion engine (ICE) vehicles will be required;
- the FES should contain two separate CO₂ targets – one for passenger cars (MA category) and one for large 4WD SUVs and LCVs (MC and NA categories). This is consistent with the vehicle classification system used in US regulations and suits vehicle usage patterns in Australia which are aligned to those of the US;
- the FES should include flexibilities and incentives which offer OEMs the same type of compliance options for meeting the standards as are available under the US fuel efficiency regulations. These will assist OEMs to manage the transition to more stringent standards in the longer term by providing some additional flexibility in the short term.³ Flexibilities and incentives could include -
 - advanced technology vehicle multiplier credits to encourage OEMs to accelerate introduction of zero and near-zero emissions vehicles
 - full-size pickup truck incentives for strong hybrids or similar performance-based technologies
 - off-cycle credits which recognise and incentivise technologies that provide real-world emissions reductions but which are not captured in tailpipe emissions compliance tests.

The FCAI urges the Government to consider these elements as it determines the final construct of its NVES.

The FCAI notes the increasing number of vehicles currently being imported into the country under the Specialist and Enthusiast Vehicle Scheme (SEVS). It remains the FCAI's view that while some of the vehicles being imported under this arrangement are genuine enthusiast or specialist vehicles, the scheme is increasingly being misused

² CIA, page 10

³ <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1013NR8.pdf>

as a parallel import mechanism for a large number of mainstream vehicles. Continued Government inaction to address this growing issue is inconsistent with the Government's stated emissions reduction objectives. The FCAI is concerned that the integrity of any FES introduced by Government will be undermined by the substantial growth in the number of vehicles entering Australia through SEVS, and so believes that all vehicles on their first supply into the Australian market should be subject to the applicable FES.

4. Government's Preferred Option – Option B

The FCAI believes that the Government's preferred NVES Option B as outlined in the CIA is not achievable in a practical sense, and that it will adversely impact consumer choice and vehicle affordability. The FCAI opposes Option B as currently drafted. In particular, the FCAI does not support:

- the proposed 1 January 2025 commencement date;
- the categorisation of vehicles within the passenger vehicle and LCVs classifications - namely the inclusion of large 4WD SUVs in the passenger vehicle segment;
- the starting CO₂ targets of 141 g/km for passenger vehicles and 199 g/km for LCVs (based on a start date of 1 January 2025);
- the aggressive emissions reduction trajectory which equates to an average annual CO₂ reduction of 17.04% and 17.2% (and a peak annual reduction of 26.09% and 27.13%) for passenger vehicles and LCVs respectively (and not 12.2% and 12.4% as stated in the CIA) (refer Attachment A);
- the imposition of an excessive penalty rate of \$100 per g/km (starting on 1 January 2025); and
- the lack of any technology credits available to OEMs under the standard.

In addition, the FCAI is concerned by the following aspects of the proposed NVES:

- the application of the break points on the limit curve, which will disproportionately impact heavier vehicles and those OEMs with a more limited fleet;
- the application of the standard to new vehicles when the vehicle is entered onto the Register of Approved Vehicles (RAV) rather than at the point of supply to the consumer; and
- the prohibition on pooling.

The above objection points are addressed in the discussion below.

Proposed start date

The proposed start date of 1 January 2025 does not allow sufficient time for OEMs to adjust product plans, and model cycles and availability to meet the changed regulatory environment. The suggestion that the NVES could commence within a few months of the standard being legislated demonstrates a lack of understanding of the manufacturing challenges involved in designing and building a vehicle, model cycles, component supply chains, and the like for the Australian market. Some OEMs' orders for 2026 are already confirmed and fixed. Contrary to many erroneous claims, it is not the case that OEMs can simply redirect overseas models to Australia on short notice. The Government would be aware that the Australian market has specific, unique, mandatory regulatory and certification requirements that require additional development and production preparation time and after-sales support, even where it may seem that a brand has suitable RHD model availability in a different market. Unique Australian Design Rules (ADRs) such as ADR 34/03, 42/05 and 61/03⁴ are not harmonised with international UN regulations and add to cost and model complexity. The *Road Vehicle Standards Act 2018* (RVSA) requires all models to be certified by the Commonwealth. That process alone takes more than 12 months and is slow, cumbersome and adds cost, complexity and lead time to the supply of vehicle models to the Australian market.

OEMs will be required to comply with a new and complex regulatory regime less than six months after the passage of (as yet unseen) legislation through the Federal Parliament. Given the complexity of the task, the FCAI has little

⁴ ADR 34/03 – Child Restraint Anchorages and Child Restraint Anchor Fittings, ADR 42/05 – General Safety Requirements, ADR 61/03 – Vehicle Marking

confidence that the administration and systems required to manage the new standard will be established, tested and working effectively for both Government and industry by the required date.

Categorisation of vehicles

The CIA proposes that the vehicle categories consist of:

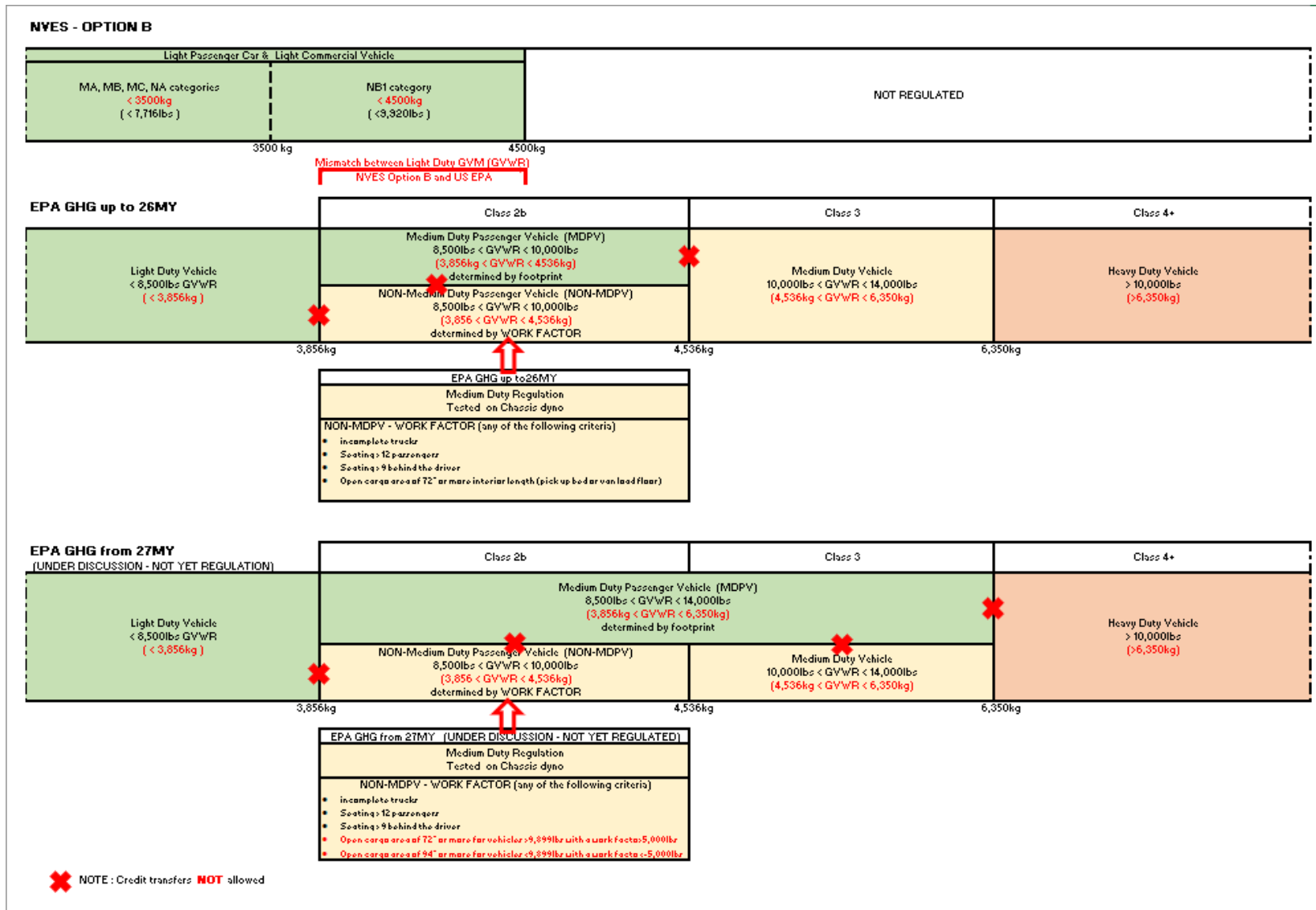
- passenger vehicles (including SUVs and four-wheel drives) in the MA, MB and MC categories; and
- LCVs (including vans) with a gross vehicle mass (GVM) of up to 4.5t in the NA and NB1 categories.⁵

The CIA does not offer any rationale for grouping SUVs with passenger vehicles, contrary to categorisations used in the US regulations. The impact of the classification is to apply an even more stringent standard to large 4WD SUVs as they will be required to meet the lower passenger vehicle segment emissions target. Again, this will be exacerbated due to the popularity (and therefore higher number of sales) of large 4WD SUVs (as compared to sedans). In 2023, 56% of new vehicle sales were SUVs compared to 17% of sedans. Further, the rationale for vehicles built from the same platform being included in different categories is not clear.

The inclusion of vehicles with a GVM of up to 4.5t is another example of significant divergence from the US fuel efficiency standards that the CIA seeks to match. The FCAI notes that some commentators have stated that the NVES will not affect the availability of LCVs in Australia and have referenced the availability of large pickups in the US. Such claims are misleading. Some large popular US pickups are not regulated in the US Environmental Protection Agency (EPA) CO₂ standards or are eligible for generous full-size pickup truck credits. Large 4WD SUVs are regulated under the US light duty truck standard rather than the light duty passenger car standard. This will not be the case in Australia under Option B, where large 4WD SUVs up to 4.5t will be regulated under the passenger car standard and all utes (including the most popular mid-sized utes such as Ford Ranger, Toyota Hilux and Isuzu D-Max models as well as the heavier full-sized utes) up to 4.5t will be regulated under the LCV standard. This will disproportionately disadvantage the utes and 4WD SUVs that Australian consumers love to drive.

⁵ CIA, page 33

The diagram below highlights the differences between the categorisations and the models covered by the US EPA(GHG) and the proposed NVES Option B.



The inclusion of the higher GVM models in the NVES is also problematic in terms of measurement. The FCAI is not aware of any standard that such vehicles can report efficiency against given that ADR 81/02 only applies to vehicles up to 3.5t. Neither is the FCAI aware of any equivalent standard for heavy vehicles (no such ADR exists), or an appropriate UN Regulation that could be quickly and easily adopted. Given the proposed start date of 1 January 2025, there is limited capacity to introduce any new standard. Therefore, while the Government intends that heavier vehicles be subject to the targets, there is currently no standardised means of measuring their emissions and there is insufficient time to implement a standard before 1 January 2025.

Starting CO₂ standard

The standard's CO₂ commencement targets included in the CIA are 141 g/km for passenger vehicles (including SUVs) and 199 g/km for LCVs (up to 4.5t). It is not apparent on what basis the Government has selected the starting headline targets. This compares to equivalent CO₂ levels as projected by Government in 2023 and 2024 as follows.

Year	PV CO ₂ (g/km)	LCV CO ₂ (g/km)
Government projection - 2023	154	214
Government projection - 2024	150	212
Commencement of standard - 2025	141	199

The FCAI believes the Government projections for 2023 and 2024 are incorrect, particularly for the LCV category. However, even if the Government's projections were assumed to be correct, the stringency of the target and the rate of reduction for OEMs simply to get to the 1 January 2025 commencement target is as high as the rate required in the first year of the regulation.

Further, the FCAI believes that the starting CO₂ targets from 1 January 2025 are unreasonable given there is no time for OEMs to make the major adjustments to their fleets prior to the application of the reduced emissions levels. This will result in many OEMs incurring substantial penalties. Basic commercial principles indicate that these substantial additional costs will be passed through to Australian consumers.

Currently, there are approximately 641 LCV variants in Australia. Some 73% (or 466 variants) will exceed the 199 g/km target on 1 January 2025 (based on New European Driving Cycle (NEDC) values). If the 2025 targets are applied to 2023 sales (the latest available data), five OEMs (representing less than 9% of sales) would meet the passenger vehicle standard (of 141 g/km) and only one OEM representing less than 0.5% of sales (and not selling any utes) would meet the LCV target (of 199 g/km).

Emissions reduction trajectory

The emissions reduction trajectory outlined in Option B is stated to be 'strong, ambitious and achievable', and set to ensure Australia catches up with the US standards in 2028, and then matches them in the out years.⁶

This position as set out in the CIA is false and misleading. The proposed NVES Option B targets and the US targets do not align, and key elements of the US standards are not replicated in Option B.

The US emissions reduction trajectory has been in place for decades, with relatively modest reduction targets set until 2012, then increasing up to 2026. There is a significant question about what targets will apply in the US post 2026 when the targets were to be subject to sharper emissions reductions. These increased reductions may now not be implemented with the Biden Administration expected to announce a significant easing of its emissions targets, based largely on a softening of demand for EVs. This development is of particular concern given the extended period of operation of FES in the US and the long-term availability of incentives to support the targets. Industry in the US is warning the US Administration that it is proceeding too fast. Meanwhile, the Australian Government is proposing to match an extrapolated US target decades in the making within four years. The FCAI

⁶ CIA, page 32

cautions that to do so will result in considerable harm to the automotive industry in Australia and to the interests of consumers in terms of increased costs.

The CIA implies that the NVES Option B will mirror the US standard, with no acknowledgement of the considerable (and important) differences between the US standards and the NVES Option B. Many of the differences go to the lack of any ameliorating elements contained within the US standards that are not replicated in the proposed NVES Option B. The FCAI's view is based on the following:

- the CIA does not state, and the Government has not indicated, which US standard it is seeking to match – the EPA (GHG) standard or the NHTSA (CAFE) standard. Each standard has different targets, penalties and emissions trajectories;
- it is unclear how the US standard targets developed for a footprint-based limit curve and tested to the US drive cycle have been converted to allow direct comparison with NVES targets under mass-based limit curves tested to the NEDC drive cycle;
- as noted above, the GVM applied in the US is lower than that proposed for the Australian NVES, meaning many LCVs in the US are excluded from their standard;
- despite claims to the contrary,⁷ the cost of new vehicles has increased under the US FES (refer Attachment B);
- the emissions targets in the US standards have been heavily and continuously supported by the availability of more than US\$350 billion of subsidies and incentives (both at a manufacturing and consumer purchasing level) under the Inflation Reduction Act.⁸ The consumer incentives available have been substantial (from US\$7,500 up to US\$15,000). No such Federal Government incentives are available to support consumers through the NVES;
- the US standard accommodates the generation of credits that can be used to offset any penalties incurred through the standard and flexibilities exist in the US standard which are absent from the NVES Option B (refer Attachment E).

As noted above, while the CIA repeatedly states that the NVES Option B is modelled on US FES, an analysis of the US standards and the proposed NVES Option B clearly demonstrates this is not the case. The FCAI notes that the CIA has developed FES targets drawn from the US, and adopts proposed future US reduction targets that the US itself appears to be moving back from. Importantly key features of the US standards that are fundamental to the achievement of the targets (such as vehicle classification, credits and incentives) are not replicated in NVES Option B. The FCAI contends that if the Government is seeking to mimic the US standard, it should do so more holistically, and not simply focus on its punitive measures while disregarding the associated incentives.

A comparison of the US standard and the NVES Option B is set out in Attachment C.

The FCAI further notes that the countries most commonly cited by Government as operating under FES (including New Zealand, the United Kingdom and the US) have either pulled back on the level of ambition and timing of their proposed emissions reduction trajectories (NZ and UK) or are expected to do so (in the case of the US). Further, some global OEMs have recently announced a curtailment of their EV fleet ambitions.

Calculation of Annual Reductions

The FCAI notes that the emissions reduction trajectories in the CIA are understated. The trajectory is specified as a 12.2% and 12.4% average annual CO₂ intensity reduction for passenger vehicles and LCVs respectively. The targets are actually far more stringent – equating to an average annual CO₂ reduction of 17.04% and 17.2% (and a peak annual reduction of 26.09% and 27.13%) for passenger vehicles and LCVs respectively (refer Attachment A). The NVES calculation of the annual rate of emissions reduction appears to be a simplistic arithmetic average taking the start and finish targets in isolation and averaging across the term. While this method promotes ease of calculation, it neither accurately nor adequately reflects the ambition of the task facing OEMs. It also distorts international comparisons.

⁷ CIA, page 18

⁸ Inflation Reduction Act of 2022

The sharp rate of emissions reduction has severe consequences for OEMs and certain vehicle fleets. For example, there are currently 76 hybrid (excluding PHEVs) variants in the Australian market. If it is assumed that these vehicles will have the efficiency gains of 2g/km of CO₂ for passenger vehicles and 3g/km of CO₂ for LCVs per annum,⁹ only four would meet or better the Government's Option B target by 2027.

Imposition of penalties

The 1 January 2025 start date, the aggressive start up targets and the imposition of a penalty rate of \$100 per g/km (which is a substantial penalty) is of concern to the FCAI. Other jurisdictions such as the US have allowed a longer trajectory to reduce CO₂ emissions.

As previously noted, the imposition of substantial penalties on OEMs will result in increased retail prices for Australian new vehicle consumers. Significant additional penalty costs cannot simply be absorbed by OEMs, so will be passed through to consumers.¹⁰ This will in turn increase the price of many vehicles. FCAI analysis shows that penalties incurred by OEMs in 2025 (based on 2023 sales) could total up to \$2.2 billion.¹¹ If these penalties are projected through the out-years of the standard, the total penalty costs (not disclosed by the Government's modelling) will obviously be substantial. It is not credible to argue that such costs will be absorbed by the OEMs and not be passed through to Australian consumers.

Regulated entity and the payment of penalties

The FCAI urges the Government to be mindful of the complexity of relationships between OEMs and their sometimes-multiple distributors in Australia when determining how the regulated entity should be defined and regulated.

The CIA suggests that the Vehicle Type Approval (VTA) holder should be the regulated entity,¹² however this has practical implications with a number of VTA holders being overseas entities. It also has implications for any credit trading system which may be implemented under the NVES.

For simplicity, the FCAI believes the supplier of the vehicle to the Australian market should be the regulated entity. However, such a definition may require long-term distribution agreements between OEMs and their domestic distributors to be reviewed and revised. Government will need to provide sufficient time for any such adjustments to be made.

Lack of technology credits

NVES Option B does not provide for the availability of off-cycle or air conditioning credits that can be used to offset CO₂ emissions – particularly in the first few years of the operation of the standard. Again, this is a significant difference from the US FES,¹³ and will effectively make the NVES targets more stringent. Given the commencement date of 1 January 2025, the lack of technology credit availability means OEMs will incur higher rate of penalties immediately with no ability to offset with technological advancements.

The US EPA established the off-cycle credit program “to provide an appropriate level of CO₂ credit for technologies that achieve CO₂ reductions, but may not otherwise be chosen as a GHG control strategy, as their GHG benefits are not measured on the specified 2-cycle test”.¹⁴ The off-cycle credits include air conditioning credits as air conditioning systems contribute to the emissions of GHGs through leakage of hydrofluorocarbon refrigerants into the atmosphere (direct emissions) and through the consumption of fuel to provide mechanical power to the air

⁹ As per the assumptions in the CIA, page 81

¹⁰ Refer Australian Financial Review, *Toyota urges Labor to put breaks on clean car plan*, 28 February 2024.

¹¹ The FCAI notes that this estimate is considered reasonable given the short timeframe between 2023 sales and the commencement of the standard on 1 January 2025 means the change in models will be minimal.

¹² CIA, page 57

¹³ <https://www.govinfo.gov/content/pkg/FR-2021-12-30/pdf/2021-27854.pdf>

¹⁴ <https://www.govinfo.gov/content/pkg/FR-2021-12-30/pdf/2021-27854.pdf>

conditioning system (indirect emissions).¹⁵ The air conditioning system also contributes to increased tailpipe CO₂ emissions through the additional work required to operate the compressor, fans and blowers. These emissions can be reduced by increasing the overall efficiency of an air conditioning system, thereby reducing the additional load on the engine from air conditioning operation, which in turn means a reduction in fuel consumption and a commensurate reduction in GHG emissions.

In the US, OEMs have been able to generate credits for improved air conditioning systems to help them comply with the CO₂ fleet average standards since the 2012 and later Model Years. As air conditioning credits represent a low-cost and effective technology pathway, EPA expected OEMs to generate both air conditioning refrigerant and efficiency credits, and accounted for those credits in developing the final CO₂ standards for the 2012 and SAFE rules by adjusting the standards to make them more stringent. EPA believes it is important to encourage OEMs to continue to implement low GWP refrigerants or low leak systems.

The FCAI believes that the US rationale for allowing the inclusion of air conditioning credits is sound and reflects the fact that they clearly contribute to emissions reductions. The FCAI supports the inclusion of air conditioning and other off-cycle credits as a valid FES element where such measures can be scientifically demonstrated as genuinely reducing emissions.

Trading, transfer of credits and pooling

The CIA specifies that credit banking and trading are available under NVES Option B, but that no pooling is permitted.¹⁶

The FCAI believes that credit banking, pooling and trading are essential elements of a FES. The purpose of a FES is economy wide CO₂ reduction, and flexibilities allowing credit banking, transferring and/or pooling are effective incentives which allow OEMs to effectively manage their product development cycles, vehicle model life and certification and homologation complexity and cost.

The FCAI notes that NVES Option B allows for credits with a three-year life before expiry, with debits being valid for two years before they are converted to a penalty. The FCAI is prepared to support the proposed period of operation for credits and debits, noting that any credit management arrangement should be open and as flexible as possible.

The ability to flexibly trade and pool credits is particularly important given the proposed (immediate) start date of 1 January 2025. This will facilitate reasonable flexibility to enable transfers between vehicle categories, regulated entities and brands. The FCAI estimates that NVES Option B will create a net deficit balance across the entire industry's new vehicle sales immediately from commencement due to insufficient credits being generated in the system. This deficit balance is likely to be excessive at the end of 2025 and this will continue to increase over the period where NVES allows OEMs to accumulate debits without actually paying the penalty. This is in direct contrast to the US EPA standard where a net credit balance was possible in the early years of the system (since 2012) and still exists at the end of the 2022 Model Year (the last completed Model Year on report).

Break points on the limit curve

Option B contains a fleet limit curve based initially on the 2022 fleet, and then updated on a rolling annual basis. Break points are included as follows:

- passenger vehicles (including SUVs): lower break point at 1,500kg, upper break point at 2,000kg;
- LCVs: lower break point at 1,500kg, upper break point at 2,200kg.¹⁷

¹⁵ The high global warming potential of the previously most common automotive refrigerant, HFC-134a, means that leakage of a small amount of refrigerant will have a far greater impact on global warming than emissions of a similar amount of CO₂. The impacts of refrigerant leakage can be reduced significantly by systems that incorporate leak-tight components, or, ultimately, by using a refrigerant with a lower global warming potential.

¹⁶ CAI, page 34

¹⁷ CIA, page 33

The impact of inserting break points in the limit curves in this manner is to distort the curve for vehicles above a certain weight and to apply penalties accordingly. The measure will therefore disproportionately target those OEMs with heavier vehicle fleets and unreasonably disadvantage certain vehicles. These heavier vehicles are often of a niche and/or limited product line and not easily decarbonised. The FCAI sees no reason to flatten the limit curve above and below specific mass values given that this is a distortion which adds administrative complexity for limited benefit.

Standard applies from entry onto the RAV

The CIA states that the NVES will only apply to new vehicles and would apply at the point at which a vehicle is entered onto the RAV.¹⁸ The FCAI does not believe that the date of upload to the RAV is the appropriate compliance date. The Government's stated objective in implementing a FES is CO₂ abatement. Any such abatement commences when the vehicle is first used in transport (and does not correspond with the date of entry onto the RAV which typically occurs when the vehicle is released from wholesale (Ready for Transport)). These two dates may differ significantly and it is not clear why the date of upload to the RAV has been proposed as the compliance date.

The CIA also states that it intends to capture those vehicles sold to the general public but proposes to exempt military vehicles, law enforcement vehicles, emergency service vehicles, agricultural, construction or mining equipment, motorhomes, horse trucks and the like. The final owner and its intended use in operation is not necessarily known to the supplier when the vehicle is uploaded to the RAV. This information is typically known only at the point of sale by the retailer.

The FCAI notes that the information required for vehicles entered on the RAV through the type approval pathway is specified under the *Road Vehicle Standards (Information on the Register of Approved Vehicles) Determination 2021*, and does not include mass in running order (MIRO), Kerb Mass or CO₂.

5. Inaccuracies in the CIA

The CIA makes a number of statements and assumptions that are factually incorrect. The implications of basing this significant long term policy on data that is erroneous is potentially crippling for the automotive sector and consumers, and fatal to the stated policy objectives.

In particular, the FCAI disputes the following assertions:

- the differential cost of deploying EV technology compared to ICE technology narrows from \$16,000 in 2022 to parity by 2030¹⁹ (refer Attachment D);
- the introduction of the NVES will save Australians money on fuel;²⁰
- introducing the Government's policy will mean that for every dollar spent, there is a \$3.08 return;²¹
- global vehicle manufacturers are not currently offering the same range of fuel-efficient vehicles, including PHEVs, HEVs and BEVs for distribution in Australia;²²
- compared to other markets, Australia also lacks access to more efficient ICE vehicles²³ (refer Attachment F);
- the experience in the US and the EU, which have long standing fuel efficiency regulations, and New Zealand, which implemented an ambitious fuel efficiency standard in 2023, doesn't show a vehicle purchase price increase²⁴ (refer Attachment B); and
- consumers will have a greater choice of vehicles.

The above incorrect assertions are addressed in the discussion below.

¹⁸ CIA, page 25

¹⁹ CIA, page 80

²⁰ CIA, page 6

²¹ CIA, page 55

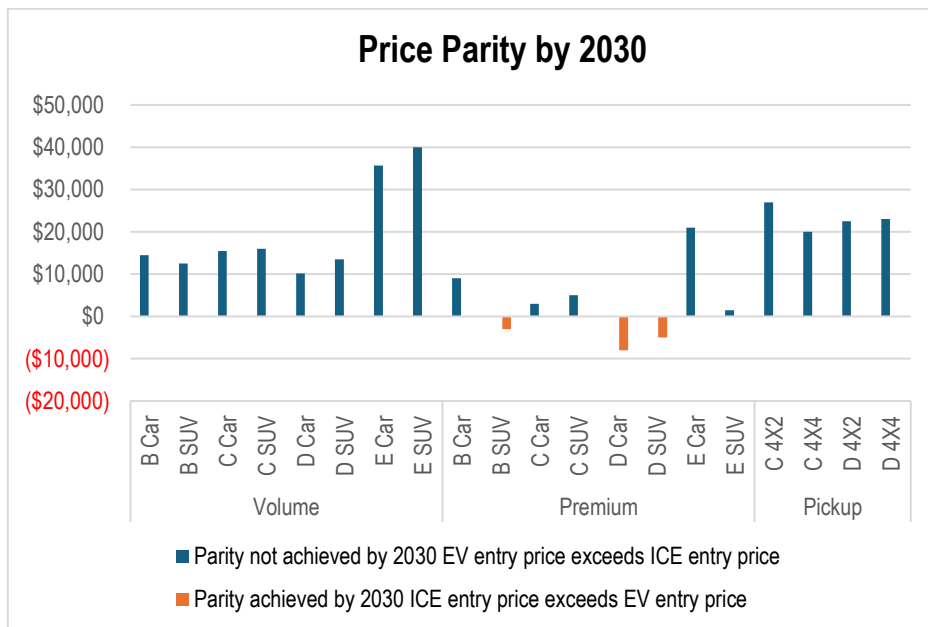
²² CIA, page 15

²³ CIA, page 15

²⁴ CIA, page 18

Price parity by 2030

Research conducted by S&P Global Mobility (December 2023)²⁵ clearly indicates that price parity between EVs and ICE vehicles will not be achieved by 2030 (refer Attachment D). The analysis concludes that parity is achieved or exceeded only in a limited number of segments – namely the B SUV premium, and the D car and D SUV premium categories. The projected price differentials in 2030 are listed in the chart below.



Fuel saving

The Government has claimed that one of the key benefits of the introduction of the NVES will be fuel savings to consumers of about \$1,000 per annum. While the clear implication of such statements is that the NVES will save (and not cost) consumers more, (of particular sensitivity during the current cost of living crisis), the failure to take a more holistic view of vehicle costs is unfortunate and misleading. In fact, the more comprehensive and realistic total cost of ownership should be considered.

While it is acknowledged that EV operating costs (such as fuel and vehicle maintenance) are cheaper than for ICE vehicles, such savings are generally not enough to offset the impact of other higher EV costs, including purchase price, insurance, depreciation and potentially weaker residual values. This means that when the total cost of vehicle ownership is considered, (rather than simply the single component of the fuel costs), EV ownership is likely to be more expensive than the equivalent ICE vehicle ownership over the life of the vehicle.

Given the total cost of ownership considerations, the Government is urged to consider action to overcome the cost to consumers involved with transitioning to an EV in order to accelerate uptake of the lower emissions vehicles. Such measures could include providing direct subsidies for EV purchasers.

²⁵ S&P Global Mobility, *SBPT Australia Q4 Update*

Cost benefit analysis

The CIA claims a benefit cost ratio (BCR) of 3.08. This is based on fuel savings; reduced vehicle maintenance costs of EVs; health benefits arising from cleaner air; and emissions reduction/climate change benefits (factored in at \$60 per tonne from 2025, inflated at 3% per annum). The listed benefits are offset by costs that include government and compliance costs; technology costs (that assumes ICE and EVs reach price parity by 2030); electricity costs; and battery replacement (every 12 years).

The CIA cost benefit analysis overestimates benefits, omits additional costs and underestimates other key costs. For example, the following are included in the CIA:

- health benefits that have already been accounted for in the Euro 6d Regulation Impact Statement (RIS) are again included in the BCR for NVES Option B²⁶, effectively double counting the benefit;
- the cited battery replacement costs (at \$5,000 for passenger vehicles and \$8,000 for utes in year 1 and reducing thereafter)²⁷ are inaccurate and significantly understated. The NRMA lists 2023 battery costs ranging from \$12,420 for a 40kWh battery up to \$35,397 for a 114 kWh battery. The NRMA projects the equivalent battery prices in 2030 to be \$7,260 and \$20,691 respectively;²⁸
- EVs currently cost between 20%-50% more than the equivalent ICE vehicle.²⁹ As noted above, S&P Global research clearly indicates price parity will not be achieved by 2030 in the vast majority of market segments.

Of concern is the CIA not acknowledging the possible withdrawal of a number of OEMs from Australia and the associated consumer and broader commercial detriment it would cause. The FCAI believes that if the Option B NVES is implemented as currently proposed, some OEMs will be forced to exit the Australian new vehicle market. Such OEMs simply will not be in a position to change their fleet composition in the limited time afforded under Option B and it will not be commercially feasible to pay the penalties and/or subsidise the vehicles to the extent required under the standard. To date, the Government has shown no concern for the consequential impact of OEMs leaving the Australian market and its implications in terms of dealerships, after sales service, and significant employment throughout the indirect automotive sector. This is most unfortunate as the adverse consequences are very real. In addition, in such a scenario, some vehicle owners will be orphaned and the residual values of their vehicles impacted.

Other

The FCAI notes that the CIA downplays a number of major 'barriers' that could challenge ability to achieve the Government's policy objectives. There is limited discussion of the issues and no attempt in the paper to address them. In particular, the FCAI refers to the acknowledgment of the following in the CIA:

- inadequate infrastructure and infrastructure limitations (including the lack of charging infrastructure);
- supply chain challenges in relation to critical minerals and other resources needed for the manufacture of EVs;
- potential for global instability to impact on the supply of vehicles; and
- consumer awareness and education leading to reluctance to take up new vehicle technologies.³⁰

²⁶ CIA, page 43

²⁷ CIA, page 75

²⁸ <https://www.mynrma.com.au/electric-vehicles/owning/cost-to-replace-ev-battery>

²⁹ CIA, page 79

³⁰ CIA, page 23

6. FCAI's Preferred Option

As noted earlier, the FCAI has long advocated for the introduction of a FES as the Australian automotive industry is committed to making its contribution to national efforts to reduce the impact of climate change.

In doing so, the FCAI has sought to work with successive Governments to develop and implement a FES suitable to the Australian market. The FCAI has been active in supplying data, research and FES proposals to Government on behalf of the Australian automotive sector. The FCAI has consistently reiterated the need to work collaboratively with industry in order to achieve emissions reduction policy outcomes while at the same time ensuring the longevity of the sector and its substantial associated industries.

It is both disappointing and of concern that the Government's Option B NVES discards this longstanding cooperative approach with industry.

The FCAI has again formulated the key elements it considers necessary to the formulation of an ambitious, but workable FES, as follows.

#	Element	Commentary	
1	Commencement date for standard	<ul style="list-style-type: none"> The first two years of the FES should operate as a 'reporting only' standard without the imposition of monetary penalties. This would inform consumers on the relative CO₂ performances of vehicles, but not at additional cost to consumers that elect to purchase vehicles that fail to meet the target in the initial years of the standard. OEMs would be provided with slightly more reasonable lead time to adjust model cycles and product plans. The commencement date for the standard must also allow sufficient time for the regulator, government departments and OEMs to develop, test and implement the required IT systems and processes. 	
2	Vehicle categories	<ul style="list-style-type: none"> The industry standard classification of vehicles should be retained, as follows: <ul style="list-style-type: none"> passenger vehicles (MA segment) LCVs (MC and NA segments). 	
3	Annual emissions reduction pathway – passenger vehicles	Average annual CO ₂ intensity reduction of 12.2%	
		Year 1	141
		Year 2	124
		Year 3	109
		Year 4	95
		Year 5	84
	Annual emissions reduction pathway – LCVs	Average annual CO ₂ intensity reduction of 10.0%	
		Year 1	199
		Year 2	179
		Year 3	161
		Year 4	145
		Year 5	131
4	Application of penalties	<ul style="list-style-type: none"> Penalty rates to apply as follows: Year 1-2: \$0 per g/km 	

#	Element	Commentary
		Year 3: \$50 per g/km Year 4: \$75 per g/km Year 5 and following: \$100 per g/km. <ul style="list-style-type: none"> The above penalties could be modified based on additional consumer incentives being provided.
5	Availability of credits	<ul style="list-style-type: none"> Technology credits should be available to OEMs for air conditioning and other off-cycle features that can be scientifically demonstrated as genuinely reducing off-cycle CO₂ emissions. Technology credits should be available at the commencement of the FES and should be reviewed periodically.
6	Multipliers	<ul style="list-style-type: none"> Multipliers should be available for OEMs to incentivise development, production and supply of low and zero emission LCVs. Multiplier for LCV should commence at 2x. Multipliers should be available at commencement of the FES and be reviewed periodically.

The FCAI notes that all of the elements of the Government’s proposed NVES rely on supply side measures (and penalties). The FCAI believes that a holistic FES equally relies on demand side incentives to achieve its objectives. Overseas experience clearly demonstrates transitioning EV consumers relies heavily on Government incentives, and the FCAI supports the implementation of demand side incentives to assist consumers overcome the costs of transitioning to an EV or PHEV in order to accelerate the uptake of lower emissions vehicles.

Such measures could include the availability of direct incentives to purchasers, or the removal of taxes which hinder the uptake of electrified vehicles. The FCAI was pleased to see the removal of the five percent import tariff for passenger EVs priced under the Luxury Car Tax threshold, but is disappointed that such concessions do not apply to EV LCVs. Similarly, the FCAI would like to see the existing fringe benefits tax exemption for PHEVs continue beyond the current sunset date of 1 April 2025, to support the adoption across fleet and lease users and align with those available to BEVs.

7. Summary and Recommendations

The FCAI strongly supports the introduction of a FES into the Australian market and has done so for a number of years. The FCAI has consistently advocated for a balanced and realistic FES that accommodates Australian consumer vehicle preferences, does not result in new vehicle price increases, and achieves meaningful emissions reduction.

The FCAI does not believe the Government’s preferred FES proposal, as outlined in Option B, achieves any of these objectives.

The Government’s proposed Option B will impose unachievable targets and substantial penalties from its impractical commencement date of 1 January 2025. The aggressive year on year emissions reductions set out in Option B are further intensified by more opaque elements of the standard, including the unusual classification of large SUVs, the application of break points on the limit curves, the GVM applied, and a lack of credits and other incentives available to OEMs and consumers.

The FCAI notes that the ultimate aim of any FES is to lower transport emissions. The FCAI believes if the targets set by Government are too aggressive (as is the case with NVES Option B), it will create a destructive cascading effect of vehicle price increases, decreased model availability in the market, a slowing in new vehicle sales, disgruntled consumer sentiment, and an aging of the vehicle fleet, which will result in a loss of the opportunity to

reduce emissions effectively. While the Government has indicated that it seeks to align the NVES with the US standards, it appears to have adopted only the more punitive aspects of the US standard without including many of the flexibilities or incentives built into the US standards.

The FCAI urges the Government to reconsider its current preferred position. In doing so, the FCAI has clearly identified a number of elements that would transform the standard into a workable and ambitious FES. These measures include adjustments to the commencement date, the classification of vehicles, annual emissions targets, the application of penalties, and the availability of credits and incentives.

The FCAI stands ready to continue to work productively with Government to attain a more effective outcome that will achieve the required emissions reductions, but that will not adversely impact the automotive industry in Australia and that will support consumers in terms of the choice and cost of vehicles in the Australian market.

ATTACHMENT A: Calculation of Annual Rate of Emissions Reduction

The NVES calculation of the annual rate of emissions reduction appears to be a simplistic arithmetic average taking the start and finish targets in isolation and averaging across the term. While this method promotes ease of calculation, it neither accurately nor adequately reflects the ambition of the task facing OEMs.

The table below shows four different methods of calculating the rate of reduction (including the Government's simplistic methodology) and shows that the average annual rate of reduction required exceeds levels required in any global market, reaching as high as 26% for passenger vehicles and 27% for LCVs in 2028.

Option B		
A strong, ambitious and achievable NVES that seeks to catch up with the US around 2028 and then match the stringency of these standards, while not seeking to go beyond these standards. Two CO ₂ targets, one for passenger vehicles and SUVs, and a higher target for utes and vans (including large pick-ups) in the light commercial vehicle category.		
Year	PV CO ₂ (g/KM)	LCV CO ₂ (g/KM)
2025	141	199
2026	117	164
2027	92	129
2028	68	94
2029	58	81
Total CO ₂ intensity reduction 2024-2029	61%	62%
Average annual CO ₂ intensity reduction for new sales	12.2%	12.4%

PC

Option B - PC							
2022	2023	2024	2025	2026	2027	2028	2029
158	154	150	141	117	92	68	58
			-6.00%	-17.02%	-21.37%	-26.09%	-14.71%
							-61.33%
						Department average	-12.27%
						Average of annuals	-17.04%
						Logest estimate	-18.54%
						Compounding estimate beginning to end	-17.31%

LCV

Option B - LCV							
2022	2023	2024	2025	2026	2027	2028	2029
217	214	212	199	164	129	94	81
			-6.13%	-17.59%	-21.34%	-27.13%	-13.83%
							-61.79%
						Department average	-12.36%
						Average of annuals	-17.20%
						Logest estimate	-18.83%
						Compounding estimate beginning to end	-17.50%

In contrast, the US EPA targets commenced with a much more achievable rate never exceeding 5.2% for either passenger vehicle or light truck in the initial Obama Administration regulation period and averaging less than 8% regardless of calculation methodology for the latest FINAL RULE applying to Model Years 2023 ~ 2026.

EPA - Car

US - EPA GHG - ACTUAL											US - EPA GHG - FINAL RULE				US - EPA GHG - PROPOSAL					
2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
267	261	253	241	231	219	209	198	189	185	183	166	159	151	134	134	117	98	90	82	73
	-2.25%	-3.07%	-4.74%	-4.15%	-5.19%	-4.57%	-5.26%	-4.55%	-2.12%	-1.08%	-9.37%	-4.31%	-5.13%	-11.27%	0.45%	-13.10%	-15.56%	-8.21%	-9.28%	-11.33%
										-31.46%				-27.00%						-45.57%
										Department average method				-6.75%						-7.60%
										Average of annuals				-7.52%						-9.50%
										Logest estimate				-7.00%						-10.37%
										Compounding estimate beginning to end				-7.57%						-9.64%

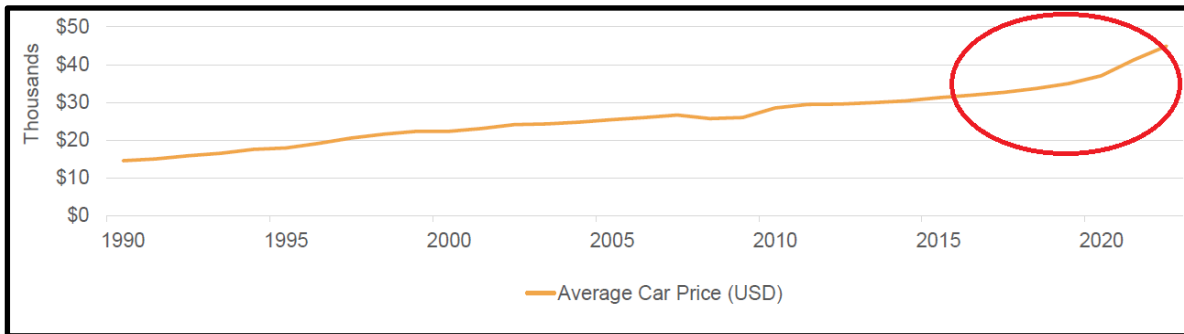
EPA - Light Truck

US - EPA GHG - ACTUAL											US - EPA GHG - FINAL RULE				US - EPA GHG - PROPOSAL					
2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
349	339	330	312	297	295	286	279	272	265	260	234	222	207	187	164	143	120	110	100	89
	-2.87%	-2.65%	-5.45%	-4.81%	-0.67%	-3.05%	-2.45%	-2.51%	-2.57%	-1.89%	-10.16%	-5.07%	-6.85%	-9.59%	-11.98%	-13.28%	-15.77%	-8.02%	-9.30%	-11.54%
										-25.50%				-28.18%						-52.55%
										Department average method				-7.05%						-8.76%
										Average of annuals				-7.92%						-11.65%
										Logest estimate				-7.55%						-11.69%
										Compounding estimate beginning to end				-7.94%						-11.68%

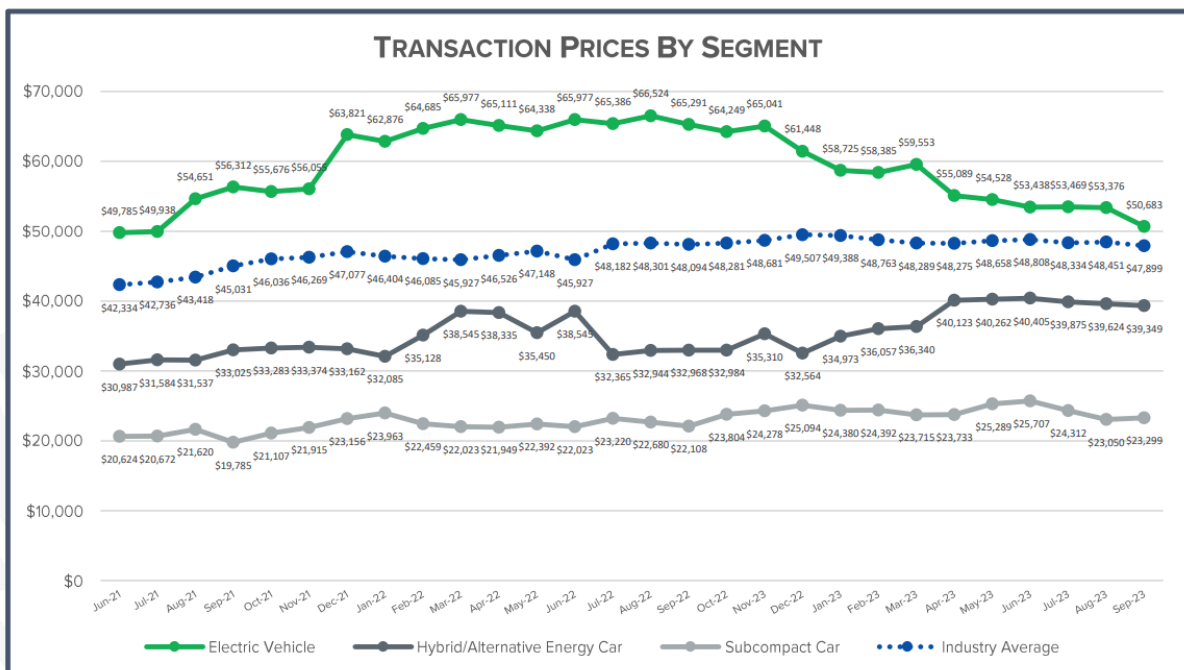
ATTACHMENT B: US VEHICLE PRICING

The Government has stated that the NVES will not increase the price of vehicles. The CIA states that the implementation of FES in the US, European Union and New Zealand have not resulted in vehicle purchase price increases.³¹

The FCAI notes that international experience does not appear to endorse the Government's claim. For example, US trends over the past 25 years suggest that average car prices increased significantly after the Obama Administration accelerated the stringency of the fuel efficiency targets.



These short-term trends in the US would suggest that the transition to an EV dominated future will see the average price of vehicles across the market increase. Intuitively this makes sense with the input (materials) cost of EVs being much higher than their ICE equivalent models.



Source: [Get Connected EV Quarterly Report 2023 Q3.pdf \(autosinnovate.org\)](#)

In the very recent past, transaction prices for pure EVs in the US have trended downwards influenced greatly by the significant industry support provided by the Inflation Reduction Act. The FCAI again reiterates that no such support is being offered under the Government's proposed NVES.

³¹ CIA, page 18

ATTACHMENT C:

COMPARISON: US FUEL EFFICIENCY STANDARD AND THE GOVERNMENT'S PREFERRED NVES OPTION B

Under the Government's plan, an Australian NVES is expected to come into effect from 1 January 2025, and will have Australia 'catch-up' to comparable markets, including the US, by around 2028.

The table below sets out key elements of the US FES and compares the standard to the Federal Government's Option B NVES.

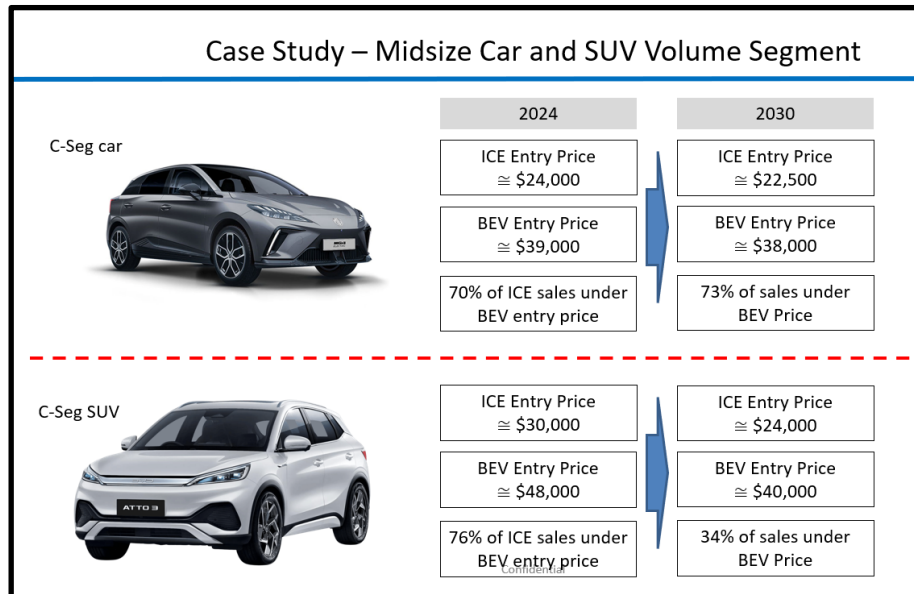
ITEM	US STANDARD	PROPOSED OPTION B	COMMENTARY
Standard	Not stated	Option B	<ul style="list-style-type: none"> It is not clear which of the US standards the government is seeking to match – the US Environmental Protection Agency (Greenhouse Gas Emissions), the National Highway Traffic Safety Authority (Corporate Average Fuel Economy), California, etc?
Standard start date		1 January 2025	
2025 CO ₂ target		PV – 141 g/km LCV – 199 g/km	
2026 CO ₂ target		PV – 117 g/km LCV – 164 g/km	
2027 CO ₂ target		PV – 92 g/km LCV – 129 g/km	
2028 CO ₂ target		PV – 68 g/km LCV – 94 g/km	
2029 CO ₂ target		PV – 58 g/km LCV – 81 g/km	
Average annual CO ₂ intensity reduction		PV – 17.04% LCV – 17.2%	<ul style="list-style-type: none"> The average annual CO₂ reduction of 12.2% for passenger vehicles and 12.4% for light commercial vehicles listed in the CIA is incorrect
Mass limit applied to vehicles included in the fuel efficiency standard	3.86t	4.5t	<ul style="list-style-type: none"> Many full-size utes are not included in the US light duty fuel efficiency standard due to the mass limit applied or due to "work factor" calculations allowed in the standard (that are based on payload and towing capacities).

ITEM	US STANDARD	PROPOSED OPTION B	COMMENTARY
Categorisation of vehicles – NB1			<ul style="list-style-type: none"> There is currently no ADR requiring suppliers to test, certify and/or report CO₂ emissions in the NB1 category.
Categorisation of vehicles – MC vehicles	Light truck	Passenger vehicle	<ul style="list-style-type: none"> The US fuel efficiency standard include heavy 4WD SUVs in the light truck standard. Option B will include heavy 4WD SUVs in the passenger vehicle segment.
Emissions measure	Grams per mile	Grams per km	
Emissions applied	Footprint	Mass based (MIRO)	<ul style="list-style-type: none"> The fundamental difference between footprint-based and mass-based methodologies makes it difficult to accurately compare headline target values. FCAI agrees that Mass in running order (MIRO), should be used as the limit curve parameter but that rate of improvement across the NVES should be relative to rate of improvement across any FES that the NVES is compared.
Test procedure used to measure emissions		NEDC or WLTP	<ul style="list-style-type: none"> The US uses a unique two-cycle test that is different to either the NEDC or WLTP tests used in Australia and the European Union. The Government intends to test emissions levels using the Worldwide Harmonised Light Vehicle Test Procedure (WLTP). As it is not possible to mandate WLTP testing until Euro 6d standards are implemented, the Government proposes to set final CO₂ targets to the WLTP test cycle and then work with industry to develop an Australian specific procedure to convert NEDC fuel consumption and CO₂ emissions test results to a WLTP equivalent. It is not clear how the US standard targets developed for a footprint based limit curve and tested to the US drive cycle have been converted to targets under a mass limit curves tested to the NEDC drive cycle.

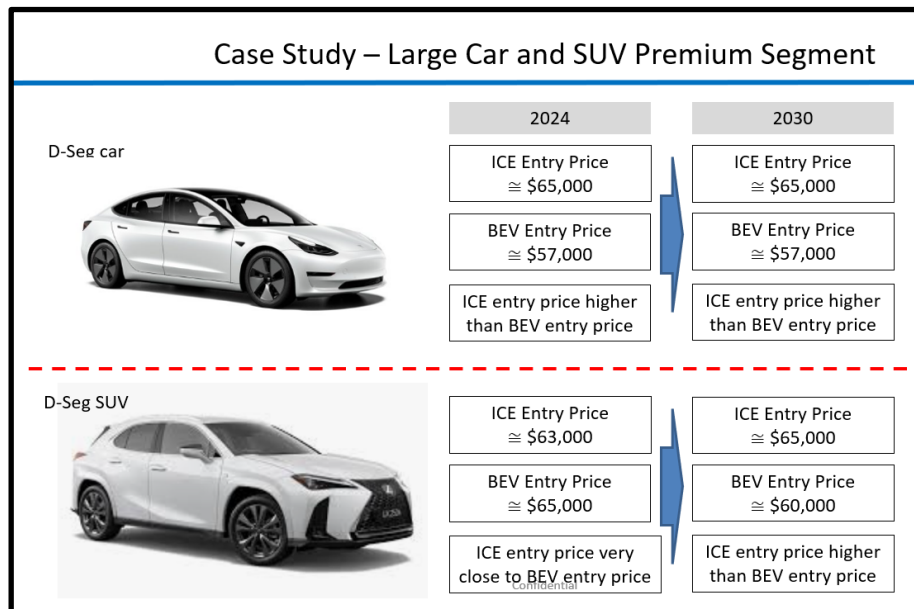
ITEM	US STANDARD	PROPOSED OPTION B	COMMENTARY
Penalty rate	NHTSA CAFE Commenced at \$5.50 per each tenth of a mpg and held static at that level until 2022MY when tripled and then fixed with inflation rate. EPA GHG No published penalty rate, with compliance managed using CO ₂ credits.	\$100 per g/km	<ul style="list-style-type: none"> Penalties are calculated on a different basis which makes a comparison invalid. Penalties for the US are calculated on the basis of a production Model Year. Option B will be calculated on the basis of vehicles supplied in a calendar year.
Availability of credits – off-cycle credits	Yes	No	
Availability of credits – super credits	Yes	No	
Availability of credits – air conditioning	Yes	No	
Availability on manufacturer subsidies	Yes	No	<ul style="list-style-type: none"> OEMs can access significant subsidies through the IRA No Federal Government subsidies are provided under Option B.
Availability of consumer subsidies	Yes	No	<ul style="list-style-type: none"> Consumers can access significant subsidies. No Federal Government subsidies are provided under Option B.
Life of credits (years before they expire) as per EPA(GHG)	5 years	3 years	
Life of debits (years before they convert to a penalty) as per EPA(GHG)	5 years	2 years	

ATTACHMENT D: PRICE DIFFERENTIAL IN 2030

Research conducted by S&P Global Mobility (December 2023)³² clearly indicates that price parity between EVs and ICE vehicles will not be achieved by 2030.

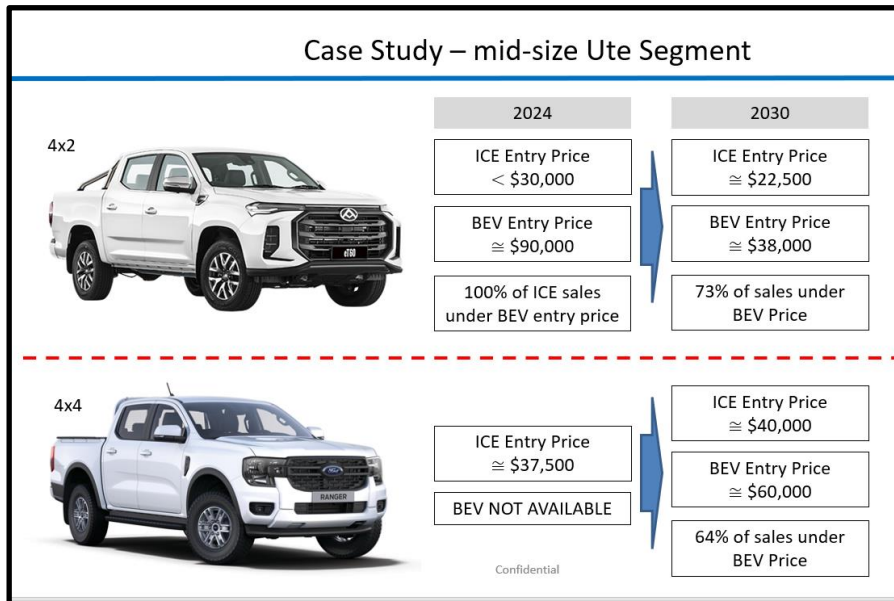


The exception to this lies in the large car and SUV premium segment where price parity already exists at the entry level, although not necessarily at the average price across the segment.



³² S&P Global Mobility, SBPT Australia Q4 Update

The same cannot be said for the mid-size 4x2 and 4x4 ute market where decarbonisation is a much more difficult task due to the commercial nature of these vehicles and the fundamental cargo carrying nature of their design. The research predicts a substantial price premium for BEV utes over their ICE equivalents even as at 2030.

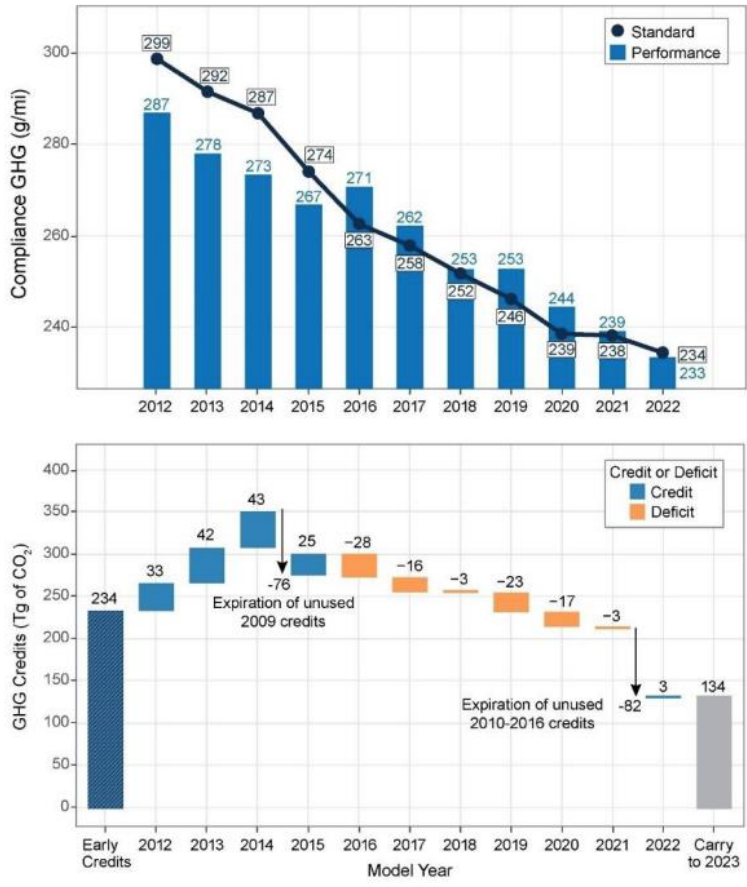


ATTACHMENT E:

Credits

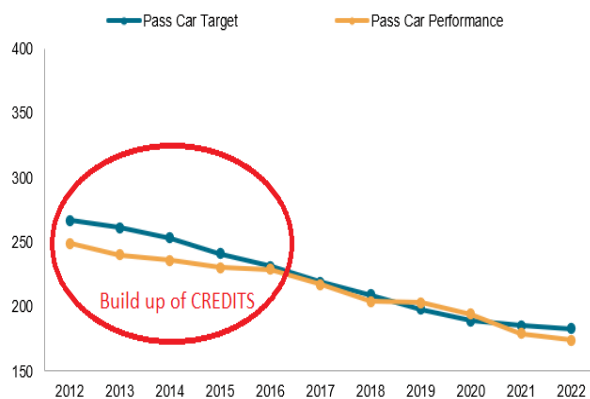
The US EPA CAFE regulation has provided OEMs with compliance flexibility by allowing the accumulation of credit /debit balances since prior to the 2012 Model Year. While the Government's preferred Option B allows banking and trading (but does not allow pooling), the ability to manage compliance afforded to the OEMs by banking and trading is not anywhere near the same degree as in the US due to the extremely short lead time to the proposed commencement of the NVES.

Figure 5.14. Industry Performance and Standards, Credit Generation and Use



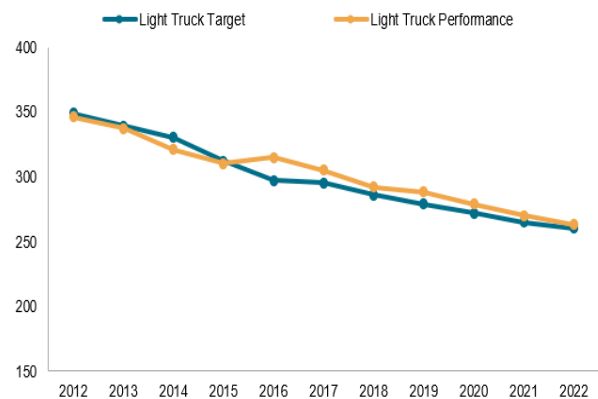
Source: <https://www.epa.gov/system/files/documents/2023-12/420r23033.pdf>

EPA Compliance, GHG g/mile



Source: EPA

EPA Compliance, GHG g/mile



Source: EPA

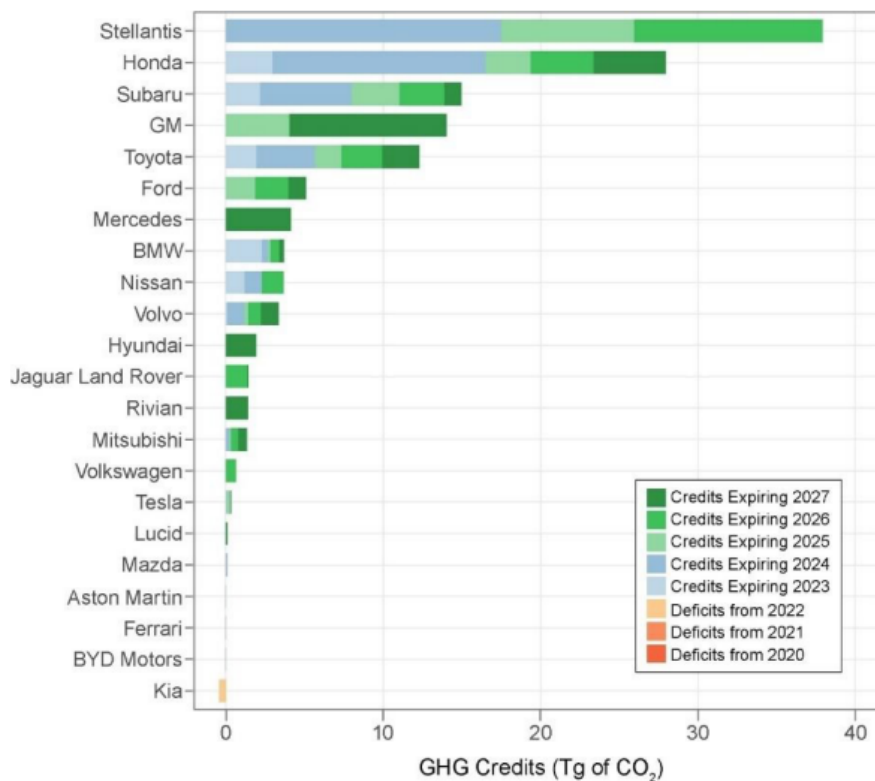
Government has stated that it does not expect to raise any revenue as a result of the NVES.

The FCAI estimates that NVES Option B will create a net deficit balance across the entire industry’s new vehicle sales immediately from commencement due to insufficient credits being generated in the system. This deficit balance will be in excess of 3,500gCO₂/km at the end of 2025 and this will continue to increase over the period where NVES allows OEMs to accumulate debits without actually paying penalty.

This is in direct contrast to the US EPA standard where a net credit balance was possible in the early years of the system and still exists at the end of the 2022 Model Year (the last completed Model Year on report).

This allows OEMs to concentrate their investment in supply chain development (particularly for EV batteries and unique components and systems), research and development of hard to decarbonise vehicle segments, and production preparation for low emission technologies. This is a far more practical use of scarce capital than the payment of penalties to government or the purchase of credits from OEMs that only operate in easy to decarbonise segments of the market.

Figure 5.13. Manufacturer Credit Balance After Model Year 2022



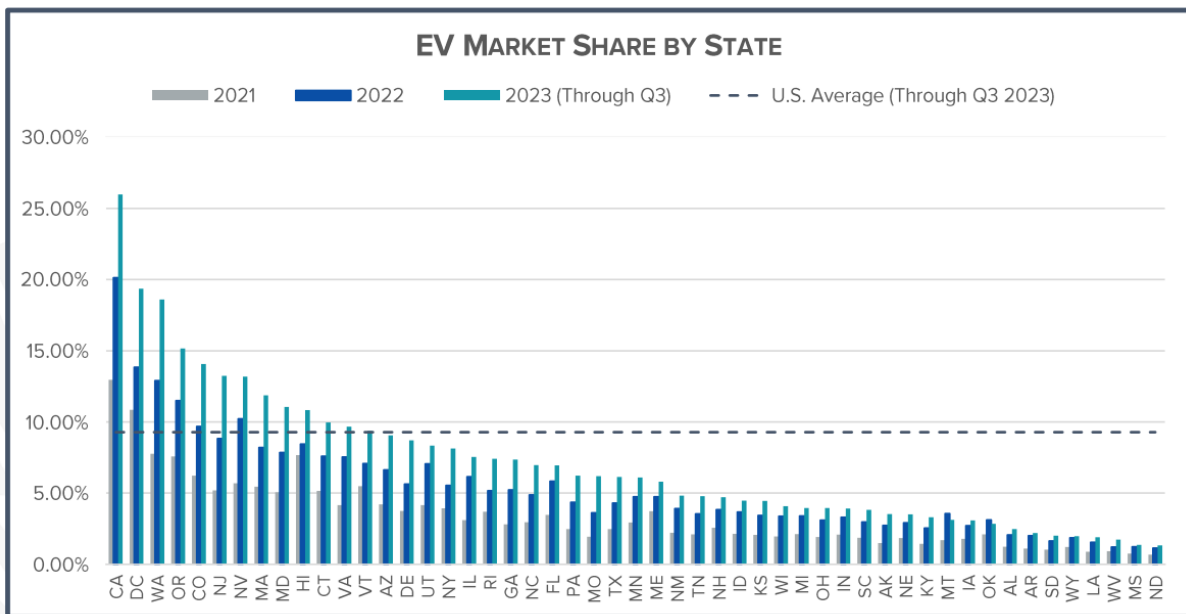
Source: <https://www.epa.gov/system/files/documents/2023-12/420r23033.pdf>

ATTACHMENT F: Uptake of Electric Vehicles in the US

Government often refers to the US as a model for the NVES and suggests that Australia’s ambition should catch up with the US within the period of the NVES, i.e. 2025 ~ 2029.

Australia’s EV market penetration including BEV and PHEV for calendar year 2023 was 8.1%.

For the period 2021~2023 (latest data through Q3), the EV penetration rate in the US consisting of BEV and PHEV has only grown to 9.3%. This penetration rate does not tell the whole story however, with only nine states out of the 50 and the District of Columbia having an EV share of greater than 10% and five states having a market share under 2%.



Source: [Get Connected EV Quarterly Report 2023 Q3.pdf \(autosinnovate.org\)](#)