



# Tesla Submission: New Vehicle Efficiency Standard

4 March 2024

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## Key feedback.

Tesla supports the Government's preferred Option B, but considers that Option C may be achievable given strong forecasts of low emission vehicle uptake.

The Department of Infrastructure, Transport, Regional Development, Communication and the Arts (DITRDCA) has produced two proposals (Option B and Option C) that are robust, elegant, transparent, and effective. If implemented as proposed, the New Vehicle Efficiency Standard (NVES) would be a world-class policy.

Australia has been slow to adopt vehicle CO2 standards. As Ministers King and Bowen have noted many times, similar standards have been in place in the United States for decades, and now cover 85% of the world's car market. Australia is among the last major economies to adopt this critical measure to tackle transport pollution.

If there is an advantage in being last, it is the opportunity to learn from dozens of preceding policy examples overseas. The Department has made the most of this advantage, applying the best features of international schemes, while avoiding unnecessary complexity and opacity.

In many other countries, petrol lobbyists have succeeded in pushing legislators to include loopholes like multiplier credits, of-fcycle credits, and non-penalty years. Submissions to this consultation will try the same.

Australians deserve a standard that has integrity and transparency. Tesla urges the Department, the Government, and crossbench parliamentarians, to reject attempts to sully the NVES with loopholes that will reduce its efficacy and trustworthiness. This submission will canvas several attempts to water down the NVES, and the false claims used to justify them.



## The Parliament should resist any attempts to weaken Option B.

Some international car companies and industry groups complain that the rate of change under the preferred Option B is too fast for them to adapt. This is disingenuous.

- 40 years ago these companies were made aware of dangerous climate change.
- 30 years ago diesel exhaust was found to be a leading cause of lung cancer.
- 14 years ago the Australian Government first recommended a vehicle CO2 standard, through the Prime Minister's Task Group on Energy Efficiency.
- 8 years ago the Australian Government proposed a 105g by 2025 standard.
- 5 years ago the Labor Party adopted the policy of a 105g target.
- 2 years ago the current Government and a majority of parliamentarians in both houses indicated support for strong vehicle CO2 standards.

After decades of inaction Australia now has the most inefficient and polluting vehicle fleet of any comparable country and must move quickly to meet its legislated climate targets. Had NVES been legislated in previous parliaments, CO2 trajectories would have been more gradual. A large part of the reason this didn't happen was the disingenuous and misleading scare campaigns supported by the same companies who now claim they cannot adjust in time.

### 1 - Delays

Some submissions to this consultation will argue that the implementation of the NVES should be delayed, or that the first year or two of the standard should be a "reporting only" period with no penalties for non-compliance. To do this would be a critical mistake. The Department of Industry has indicated that it stands ready to implement the NVES from January 1, 2025.

Every year of further delay in implementing a robust standard makes Australians spend more on petrol. Every extra tonne of pollution allowed to foreign carmakers is one that an Australian farmer, manufacturer, or electricity generator will have to reduce instead.

### 2 - Penalties

The penalty price of \$100 per gram outlined in Option B is too low. The penalty price per gram in Europe's vehicle CO2 standard is 95 Euro per gram, which equates to AUD~160. A \$100 penalty price is significantly lower than Europe, and risks manufacturers continuing to prioritise the European market for zero and low emission vehicles.

Some vehicle manufacturers will suggest that standards should operate for several years without financial penalties. A vehicle efficiency standard without a penalty is not a standard, but a suggestion.

Some in the automotive industry will argue that penalties are not required because a "name and shame" approach will see carmakers reduce emissions. This is laughable. Car companies have had no reluctance to exceed the voluntary target the industry established for itself. Indeed doing



so is the only economically rational choice for many companies. 85% of the global car market already has vehicle efficiency standards. In that context it is economically irrational for international carmakers to send their most efficient vehicles to Australia, where there are no penalties or credits to accrue. The only rational thing for international car companies to do is to send their least efficient models to Australia, saving their efficient modern variants for markets with strong regulations.

### 3 - Category changes

Several submissions to this process will suggest that the MC category (off-road SUVs) should not be in the Passenger Vehicle category but rather grouped with Light Commercial Vehicles. The challenge in doing so is that while the MC category is ostensibly for offroad vehicles, some of the most popular models in the category are clearly primarily urban passenger vehicles. The Audi Q5, Porsche Cayenne, and Subaru Forester are good examples. If this MC category is placed on a higher CO2 target trajectory, the Road Vehicle Certification Scheme (RVCS) must be reviewed and tightened. Increasing approach angle and clearance requirements for the MC category would be important to tighten CO2 outcomes for a FES.

Additionally, building a safeguard mechanism into NVES whereby a reduction in the CO2 target for the MC category is triggered if and as the category grows in market share would prevent category shift by consumers and/or carmakers from undermining CO2 outcomes.

### 4 - Multiplier credits

As outlined in Tesla's submission to the Fuel Efficiency Standard consultation in May 2023, there are three key reasons that Australia should avoid multiplier credits in general. Firstly, multiplier credits reduce transparency and integrity. Multipliers make standards significantly more complex which increases the administrative burden on government and industry alike. Secondly, multiplier credits make the CO2 abatement achieved difficult to predict. Technology uptake is difficult to forecast; multiplier credits multiply the impact of this uncertainty. Thirdly, multiplier credits are unnecessary for most purposes. The strongest incentive for low emissions technology is a strong and internationally competitive penalty price. Later sections of this submission outline in some detail how the inclusion of multiplier credits can significantly undermine the CO2 outcome of NVES.

### 5 - Break-points on the mass limit curve should be maintained.

Break-points are a sensible tool when implementing mass limit curves for CO2 targets. Option B and C mirror the break limit points already used in New Zealand's Clean Car Standards.

### 6 - Offcycle and other technical credits should be avoided.

Tesla does not support the inclusion of off-cycle credits in an Australian standard. Off-cycle credits dilute the efficacy of standards and are being phased out in other standards around the world for this reason. Off-cycle credits increase complexity, decrease transparency, and threaten CO2 outcomes.



## Six years of deceptive claims by the FCAI about climate targets.

Tesla is both a member of the FCAI and represented on its Board, so it's important that Tesla makes clear its disagreement with the submission made by the FCAI to this review, and with false claims it has made in the public discussion of vehicle standards.

Option A in the Consultation Impact Assessment is clearly based on the targets and design that the FCAI have been advocating for several years. The Department's comprehensive assessment found that this option provided negligible petrol savings for Australian families, and negligible emissions reductions compared to business as usual. The Department's analysis finds that the FCAI and many automotive companies have lobbied for an approach that would achieve nothing.

The FCAI has a right to publicly argue, if it wishes, that international car companies should make no contribution to tackling climate change in Australia. It doesn't have the right to lie. For years the FCAI has claimed that the targets it lobbies for are "ambitious" while knowing full well this was a Clayton's approach: the standards you have when you have no standards.

Nobody in the automotive industry can claim to be surprised by the Department's conclusion that the FCAI's target would have negligible impact to 2030. This has been openly discussed in the FCAI for several years.

In fact the FCAI was aware before making their submission to the Government in 2023 that its proposal not only would fail to decrease emissions relative to 2030 but would allow vehicle pollution to increase significantly.

### 1 - Standards that allow emissions to increase.

In May 2023 the FCAI made a submission to the Department's "The Fuel Efficiency Standard – Cleaner, Cheaper to Run Cars for Australia Consultation paper" process.

The submission claimed that "the FCAI's industry-led CO2 standard is a robust and ambitious set of targets across the two chosen categories" and recommended that Government adopt FCAI's voluntary CO2 standard as a "realistic basis for the cautious start period of a "Cautious Start-Finish Strong" approach to a mandatory Fuel Efficiency Standard."<sup>1</sup>

Before FCAI made its submission, Tesla showed the FCAI executive and its CO2 committee simple calculations demonstrating that under the FCAI's own forecasts, the FCAI's voluntary standard would allow vehicle emissions to increase up to 25% by 2030.

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<sup>1</sup> FCAI Response to Fuel Efficiency Standard – Cleaner and Cheaper-to-run Cars for Australia Consultation paper May 2023



Tesla asked FCAI executives if this analysis missed anything; FCAI's CEO responded simply "You are missing the review process." That is to say: the FCAI was aware that the standards it advocated would allow emissions to increase, but lobbied the government to adopt this approach anyway, suggesting simply that the details could be changed several years later.

Tesla's calculations simply applied S&P Global Mobility's forecast of electric vehicle uptake in Australia, which was purchased by FCAI and shared with its members, and applied the 3x multiplier credits which FCAI's voluntary standard applies to zero emission vehicles.

This showed that with EV uptake of just 28% in 2030 as forecast, these multipliers would create so many loophole credits in the system that vehicle pollution could actually increase in total.

This is possible because under FCAI's voluntary standard, multiplier credits mean that low emission vehicles are counted as if they are vehicles. When 28% of vehicles sold are electric, triple-counting them makes it appear as though they were 84%. In a year where 1 million vehicles are sold, there would be 560,000 imaginary electric vehicles being counted as if they were real. These imaginary EVs would make it appear on paper as though average vehicle emissions were decreasing even if carmakers imported huge numbers of oversized and inefficient vehicles that saw overall vehicle pollution rise.

Tesla noted that the 28% uptake forecast was S&P mobility's forecast for a base case with "no policy change" and that if EV uptake increased in line with the targets that have been set by almost all state and territory governments in Australia of 50% by 2030, total vehicle emissions in Australia could increase by up to 25% and still beat FCAI's voluntary CO2 target.

In short, the FCAI told the Australian Government and the Australian public that its voluntary targets were "ambitious and robust." This was a lie. The FCAI knew that its targets would actually allow carmakers to increase emissions because of enormous loopholes that create hundreds of thousands of electric vehicles that only exist on paper.

2 - 6 years of "ambitious" targets that do nothing.

Tesla's calculations are far from the first time the FCAI has been aware that its proposals are worse than doing nothing at all.

5 years earlier to the day, on May 29 2018, the Department of Infrastructure briefed then Minister Paul Fletcher for a meeting with then Energy Minister Josh Frydenberg, which has now been released after Freedom of Information requests.

The memo outlined that the Coalition Government's proposed Fuel Efficiency Standards had benefits including "fuel savings for consumers of over \$220 a year, improved air quality that would save \$340 million in health costs a year, and reduced greenhouse gas emissions of over



22 million tonnes to 2030. Overall, it is estimated that the package would provide around \$2 of benefits for the Australian community for every \$1 of cost.”<sup>2</sup>

The Department told Minister Fletcher that the FCAI and Australian Petroleum Institute had proposed a weaker standard than the government, that “is estimated to deliver little more than business as usual improvements in fuel efficiency.”<sup>3</sup>

Worse than that, the Department calculated that the FCAI’s proposal could lead to emissions “Up to 9% worse (if achieved with credits)” than business as usual”.<sup>4</sup>

When the Turnbull/Abbott Government failed to implement Fuel Efficiency Standards, the FCAI implemented a voluntary industry-led standard. Publicly, it claimed these were “ambitious”. This is despite the FCAI’s own modeling by ABMARC, and analysis by government, concluding that target like FCAI’s could be met in 2030 without a single electric ute being sold, and with just 2-4% of passenger vehicles being electric

By 2023, 8.4% of new cars in Australia were already electric, yet the FCAI still claimed in its submissions to the Government’s May 2023 consultation that the AMBARC research was “world’s best knowledge” and that its voluntary target was “ambitious.”

In July 2022 the FCAI secretariat briefed its members on CO2 standards. It outlined that FCAI’s policy objective was to implement a mandatory new car CO2 regulation inline with the FCAI voluntary standard. Yet in that same presentation, the FCAI shared with members forecasting by S&P Global. Based on public announcements the industry has already made, S&P forecast that even without strong government standards, the industry was on track to achieve emissions reduction far beyond the FCAI’s voluntary targets.

So it was explicitly clear to all members that the FCAI would push for the government to adopt its voluntary target as government policy, and it was also explicitly clear that this voluntary target would achieve no emissions reductions compared to business as usual in 2030.

It’s appalling that the FCAI and many petrol car companies have deliberately lobbied against attempts to tackle climate change, reduce lung cancer, and improve Australians’ cost of living. What’s worse is that they knowingly lied about it, claiming repeatedly over 6 years that their proposals were ambitious plans to reduce emissions to 2030 when behind closed doors it was openly acknowledged that this was untrue.

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<sup>2</sup> Department of Infrastructure [FOI 23-042](#) Page 4

<sup>3</sup> Ibid. page 5

<sup>4</sup> Ibid. page 16



## False claims made by the FCAI about NVES

Since the release of the Consultation Impact Analysis, The Federal Chamber of Automotive Industries (FCAI) has run a concerted public campaign against the Government's preferred model of New Vehicle Emissions Standards.

Tesla considers that many of the claims FCAI has made over the last month are plainly false, and that the FCAI is knowingly misleading the public and severely damaging its credibility.

The FCAI claims to represent the views of the automotive industry, but on this topic have chosen to represent only one section of the industry: those companies who would continue to delay. This is a disservice to many automotive companies who have their shoulder to the wheel on climate change, investing over \$1.6 trillion dollars to date into electrification<sup>5</sup>. The FCAI's claims are also discordant with public commitments from companies including Ford, Jaguar Land Rover, Volvo, and Mercedes-Benz that have publicly committed to phasing out combustion engines in leading markets by 2035. Many companies have clearly differentiated themselves from the FCAI's position by announcing their support for NVES.

### 1 - False claims about vehicle prices

On 17 February 2024, several media outlets published print and television stories featuring claims by the FCAI about price changes to the 20 top-selling vehicle models that would likely occur under NVES.

For example, News.com.au published an article<sup>6</sup> that featured claims made by the FCAI about the impact of the NVES on upfront vehicle prices and included a graphic (see Appendix 1) titled "How Australia's top 20 cars will fare under proposed new emissions standards". Similar graphics ran on the same date in the Daily Mail<sup>7</sup> (Appendix 2) and then on Channel 9's The Today Show<sup>8</sup> (Appendix 3) where FCAI CEO Tony Weber claimed: "Next year if the vehicle you purchase doesn't meet the standard as put out by the government, you have to pay a fine." Clearly implied in the graphics, headlines, and the direct quotes from FCAI was the claim that these particular vehicle models would increase or decrease in price to consumers by the amounts claimed.

According to these graphics sourced from FCAI, next year the Tesla Model 3 will be "\$15,940" and the Model Y "\$15,390" under NVES Option B.

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<sup>5</sup> Bloomberg Zero -Emission Vehicles Factbook | December 2023

<sup>6</sup> "[Prices of popular Utes to increase by up to \\$13,000 under new emissions standards](#)". Frank Cheung, News.com.au February 17, 2024

<sup>7</sup> "[Warning Aussies face paying up to an extra \\$13,000 for popular car models under Albanese government plan](#)", Zak Wheeler, Daily Mail February 17, 2024

<sup>8</sup> *Today Show* Channel 9 accessed via "[Aussies could pay more for utes and SUVs under new rules](#)", Allanah Sciberras, 8:58am Feb 20, 2024





This is simply a lie; a nonsensical claim made by FCAI without checking the facts with the car companies who actually set prices.

## 2 - Cherrypicking the most polluting variants

For example, the FCAI has claimed that the Ford Ranger will increase in price by \$6,150. The FCAI based their claim on the most polluting Ranger variant, the Raptor, which emits 262g CO<sub>2</sub>/km according to the Australian Government's Green Vehicle Guide (GVG)<sup>9</sup>.

The pictures of Ford Rangers run by media next to this claim are not of Raptor variants but of XL or Sport variants, which have emissions starting at 189g CO<sub>2</sub>/km per GVG.

The guide lists 42 variants of the Ford Raptor for 2023<sup>10</sup> of which 20 have CO<sub>2</sub>/km under 200g/km. Under Option B of NVES the 2025 CO<sub>2</sub> target for light commercial vehicles is 199g (although each variant's specific CO<sub>2</sub> target under NVES will depend on its mass).

The most efficient Ranger listed emits 182g of CO<sub>2</sub>/km. By the FCAI's logic several Ranger variants would be significantly cheaper in 2025 under vehicle standards.

Many of the models the FCAI has cited have variants that are under the proposed 2025 NVES CO<sub>2</sub> target for 2025. The Ford Ranger, Toyota Hilux, and Isuzu D-Max have variants listed on the GVG that are under the NVES target for light commercial vehicles in 2025. These variants would receive credits, not debits and by the FCAI's logic would be cheaper for consumers, not dearer.

It appears that the FCAI has deliberately selected more polluting variants of each model to make claims about price increases for all variants of that model. The effect is clearly very misleading: consumers are led to believe that a model will increase in price. This is clearly not the case for many variants, some of which even generate credits under efficiency standards.

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<sup>9</sup> Green Vehicle Guide, accessed 3 March 2024

<sup>10</sup> *ibid.*



### 3 - Misrepresenting how standards work

FCAI's claims are based on a simplistic and false calculation: where a vehicle (or a misleadingly chosen variant of the vehicle) is over or under its weight-adjusted CO2 target under proposed standards, the FCAI multiply this difference by \$100 per gram of CO2, which is the proposed penalty price. The FCAI then claims this will be the price increase or decrease for consumers. This is not how the NVES works for several reasons.

#### **A - Car companies will pay no penalties at all if their average emissions comply with standards.**

The point of vehicle efficiency standards is to reduce vehicle emissions. Most companies respond to standards by doing just that, and are already operating under standards in 85% of the global vehicle market. Paying penalties is a last resort.

Because the balance of penalties or credits for each car company is calculated based on brand average emissions for the year, it's misleading to claim that one particular vehicle will incur penalties. Penalties are only paid if a car company first exceeds its average CO2 target as calculated across its vehicle sales for a year, and then chooses not to offset its debits with credits from other years of its operations, or from other manufacturers.

Of the 20 Top-selling vehicles that the FCAI has claimed will increase in price, 12 are sold by companies that performed below their target for EPA standards in the USA, according to the EPA's 2023 Automotive Trends Report<sup>11</sup> and therefore generated net credits, not debits under that standard.

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<sup>11</sup> [2023 Automotive Trends Report](#), Environmental Protection Agency.

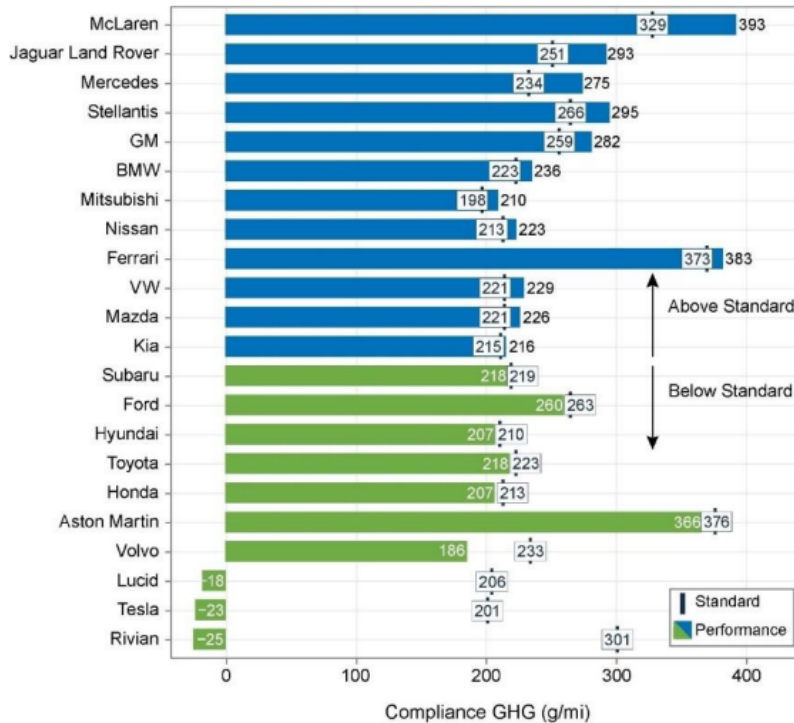


Figure: Brand performance under US EPA Standard, 2022<sup>12</sup>

The FCAI is well-aware of this because the same dynamic exists under the FCAI's own voluntary CO<sub>2</sub> standard. For example, many of Toyota's vehicle variants exceed the FCAI's voluntary CO<sub>2</sub> target, yet Toyota beat its overall target under the FCAI's voluntary scheme by some 2 million grams in 2022, the most recently reported year<sup>13</sup>. If the FCAI standard adopted a \$100/gram penalty like the proposed Option B, Toyota would have no penalties to "pass on" to consumers on Hilux or other models that individually exceed the target; instead it would have over \$200 million of credits.

## **B - Car companies can offset polluting vehicles with less polluting vehicles up to two years later.**

Even if car companies do not balance their more polluting vehicles with efficient models in a given year, they are able to carry-over any debits generated, offsetting these with more efficient models that arrive up to two years later.

<sup>12</sup> *ibid.*

<sup>13</sup> Monitoring CO<sub>2</sub> emissions from passenger cars and light commercial vehicles in 2022, FCAI 2023.



### **C - Car companies trade credits at below the penalty price.**

A popular option for car companies that accrue debits is to purchase credits from companies that accrue credits. The FCAI's claims either ignore this option or falsely assume that regulatory credits would be traded at the penalty price.

Thus the FCAI claims the Tesla Model 3 would decrease in price by \$15,940. This is clearly untrue. While Tesla would generate 159.4 grams of regulatory credits per Model 3 sold in 2025, it absolutely is not the case that regulatory credits would simply translate directly into price reductions for consumers, nor revenue for Tesla.

Firstly, it would be irrational for a company to pay a competitor \$100 per gram for regulatory credits rather than pay a \$100 penalty to the government. That's why it is impossible to imagine that Tesla could realise \$15,940 in revenue from the sale of a Model 3 to pass on to customers as price discounts.

Secondly, the purpose of new vehicle efficiency standards is to decrease vehicle emissions. Ideally, as many car companies as possible meet their CO2 targets and there is little demand to purchase credits. The more standards achieve their purpose of reducing pollution, the less regulatory credits will be worth.

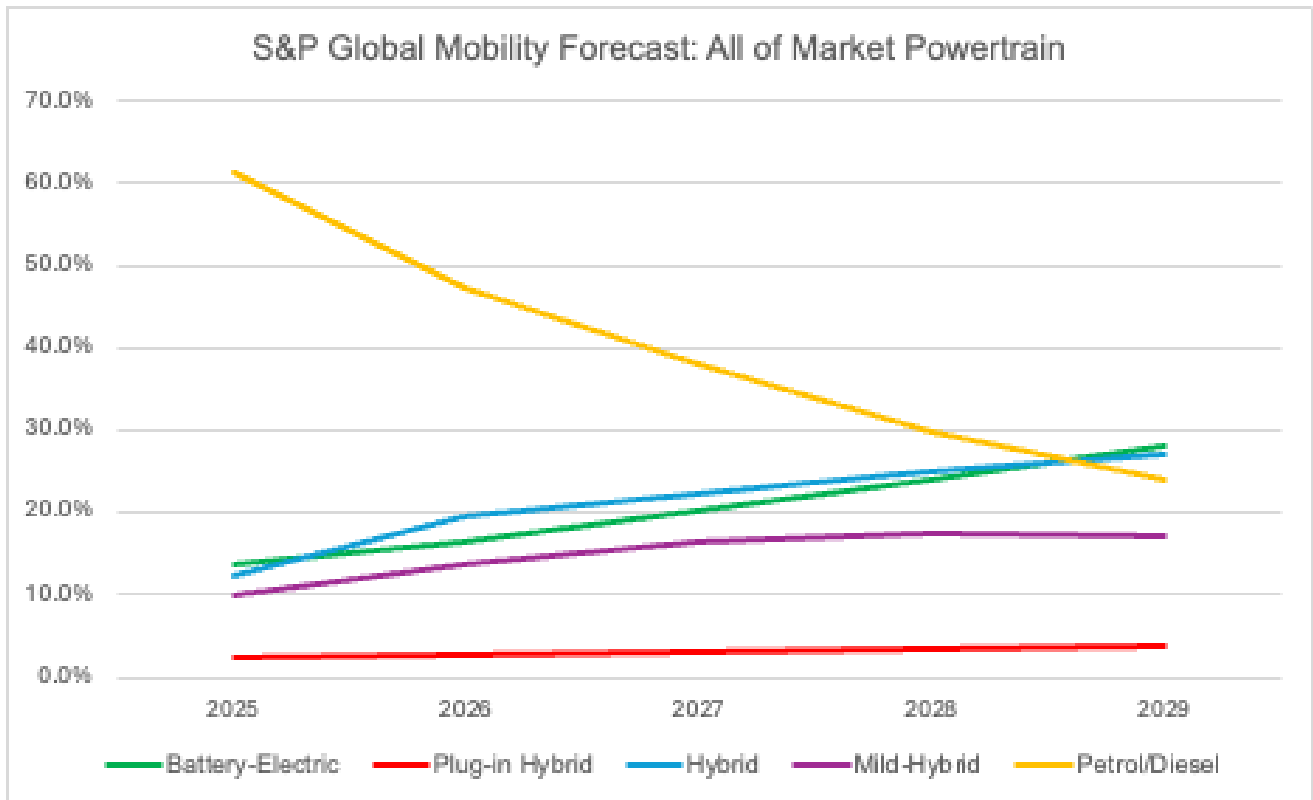


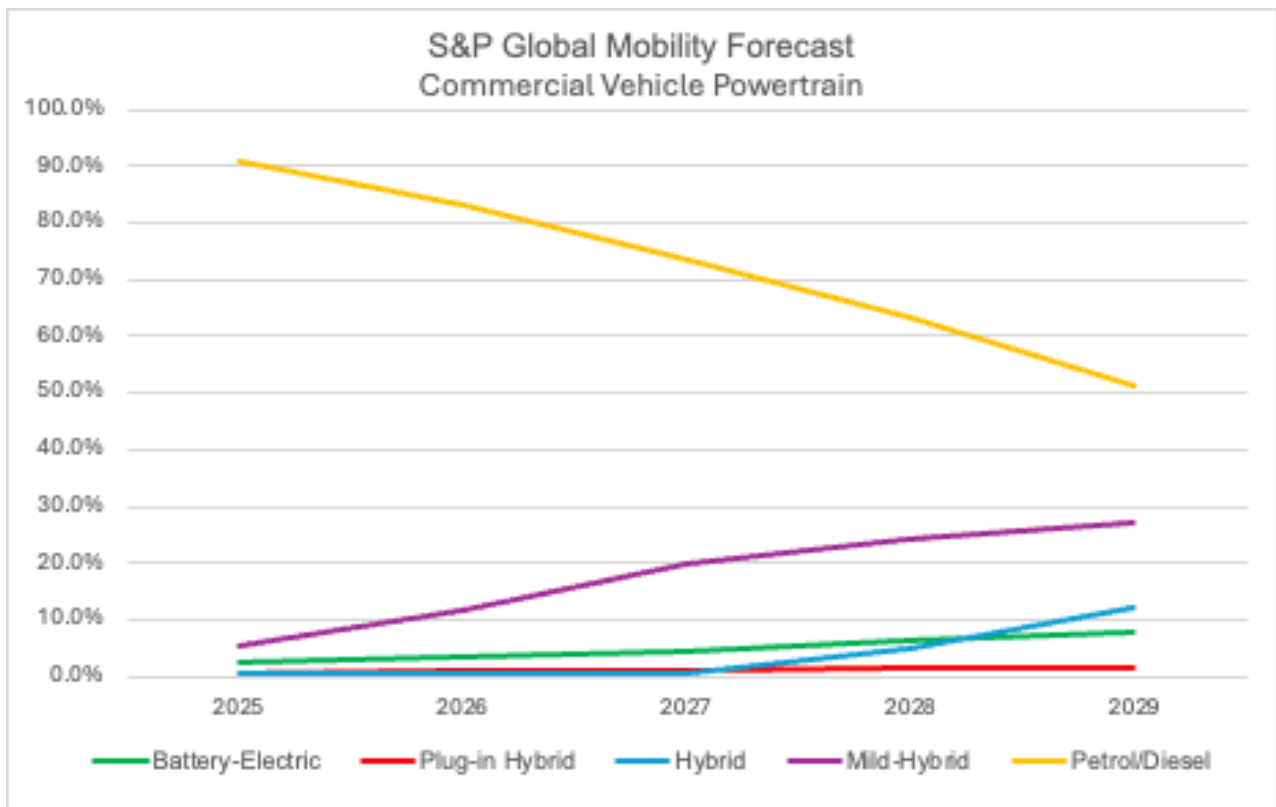
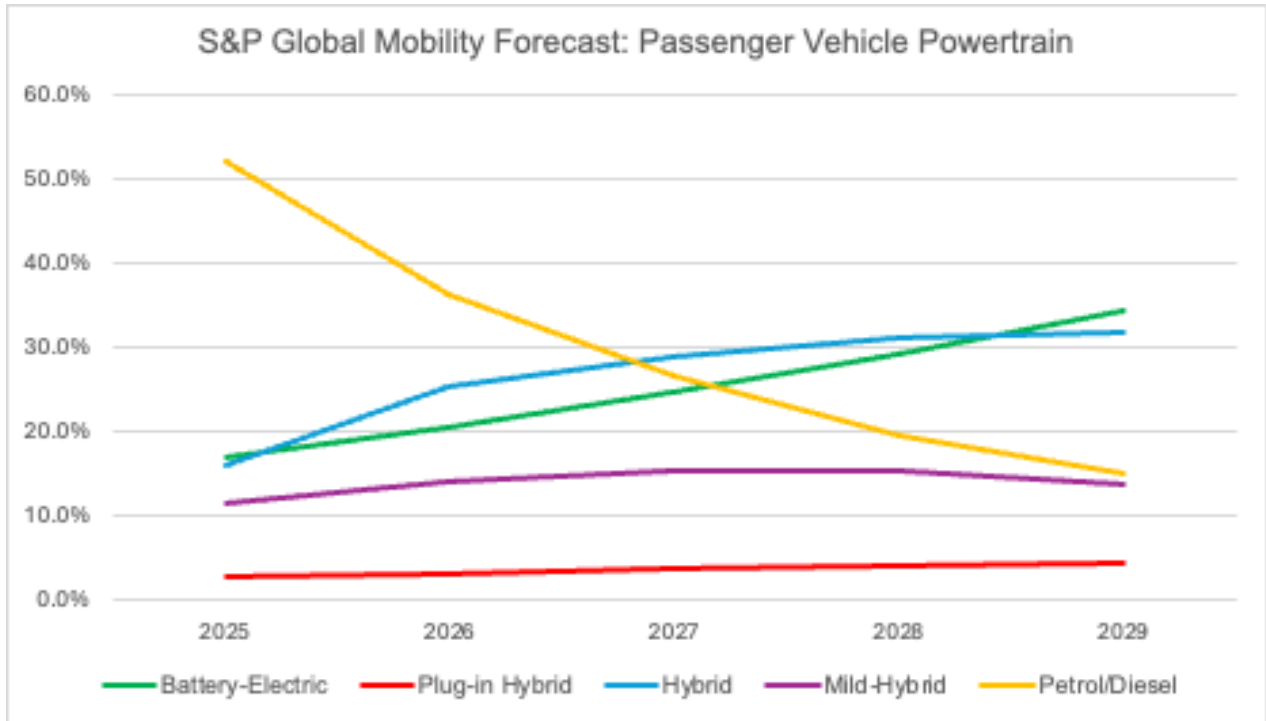
## S&P Global Mobility Forecast

Tesla has purchased access to the February 2023 interim update of the S&P Global Mobility Sales-Based Powertrain Forecast for drivetrain and CO2 for the Australian vehicle fleet to 2029. The following section outlines top-line results of this forecast. Prior versions of this forecast have been referenced in other organisations' submissions; the data below is current as of March 2023.

### 1 - Powertrain mix to 2029

The forecast analyses public announcements from car companies to form a forecast of sales. As of March 2023 S&P Global Mobility now forecasts a stronger performance by industry. Its forecast for industry performance, even without strong legislated standards as outlined at Option B, sees electric vehicles significantly outnumber pure petrol and diesel cars by 2029.





**Table: S&P Global Mobility Sales-Based Powertrain Analysis March 2024****Light Commercial Vehicles**

	2025	2026	2027	2028	2029
Battery-Electric	3%	4%	5%	6%	8%
Fuel-cell	0%	0%	0%	0%	0%
Plug-in Hybrid	1%	1%	1%	1%	2%
Hybrid	1%	1%	1%	5%	12%
Mild-Hybrid	5%	12%	20%	24%	27%
Petrol/Diesel	91%	83%	73%	63%	51%

**Passenger Vehicles**

	2025	2026	2027	2028	2029
Battery-Electric	17%	21%	25%	29%	35%
Fuel-cell	0%	0%	0%	0%	0%
Plug-in Hybrid	3%	3%	4%	4%	4%
Hybrid	16%	25%	29%	31%	32%
Mild-Hybrid	12%	14%	15%	16%	14%
Petrol/Diesel	52%	36%	27%	20%	15%

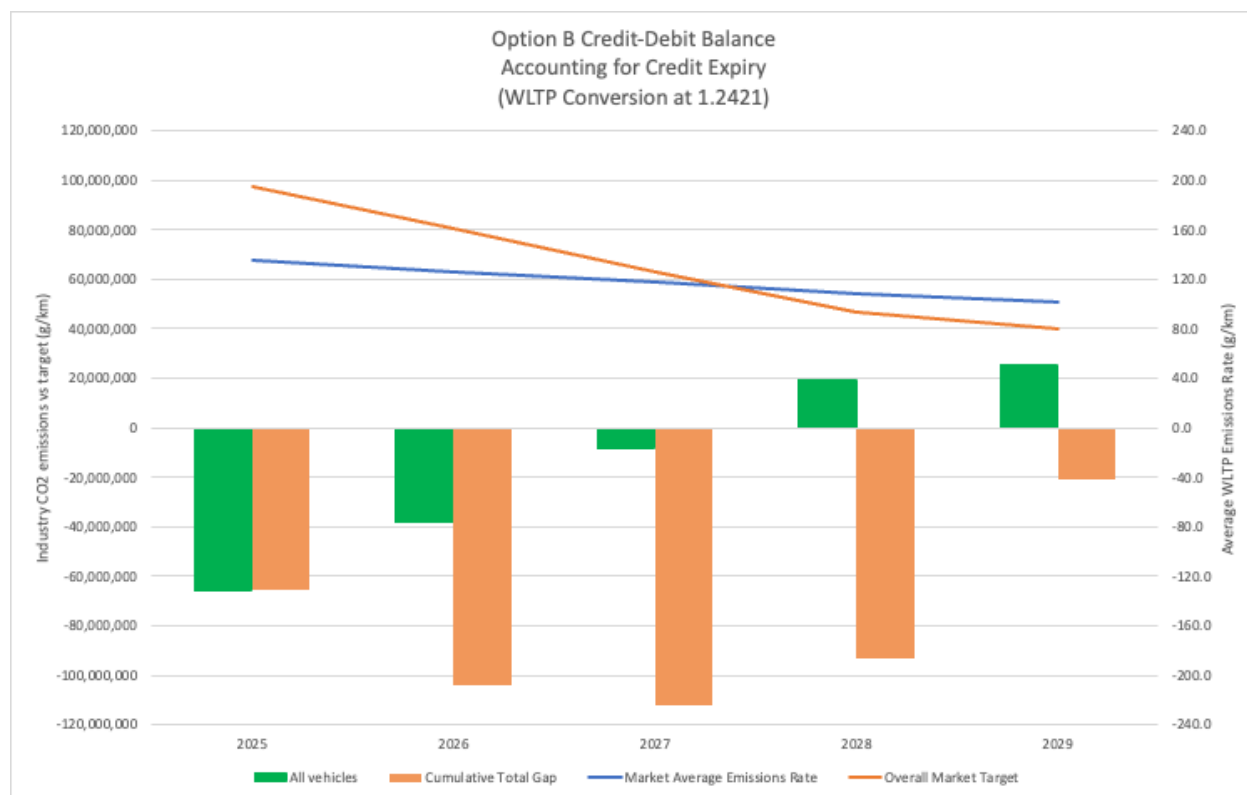
**All light vehicles**

	2025	2026	2027	2028	2029
Battery-Electric	14%	17%	20%	24%	28%
Fuel-cell	0%	0%	0%	0%	0%
Plug-in Hybrid	2%	3%	3%	4%	4%
Hybrid	12%	20%	22%	25%	27%
Mild-Hybrid	10%	14%	17%	18%	17%
Petrol/Diesel	61%	47%	38%	30%	24%



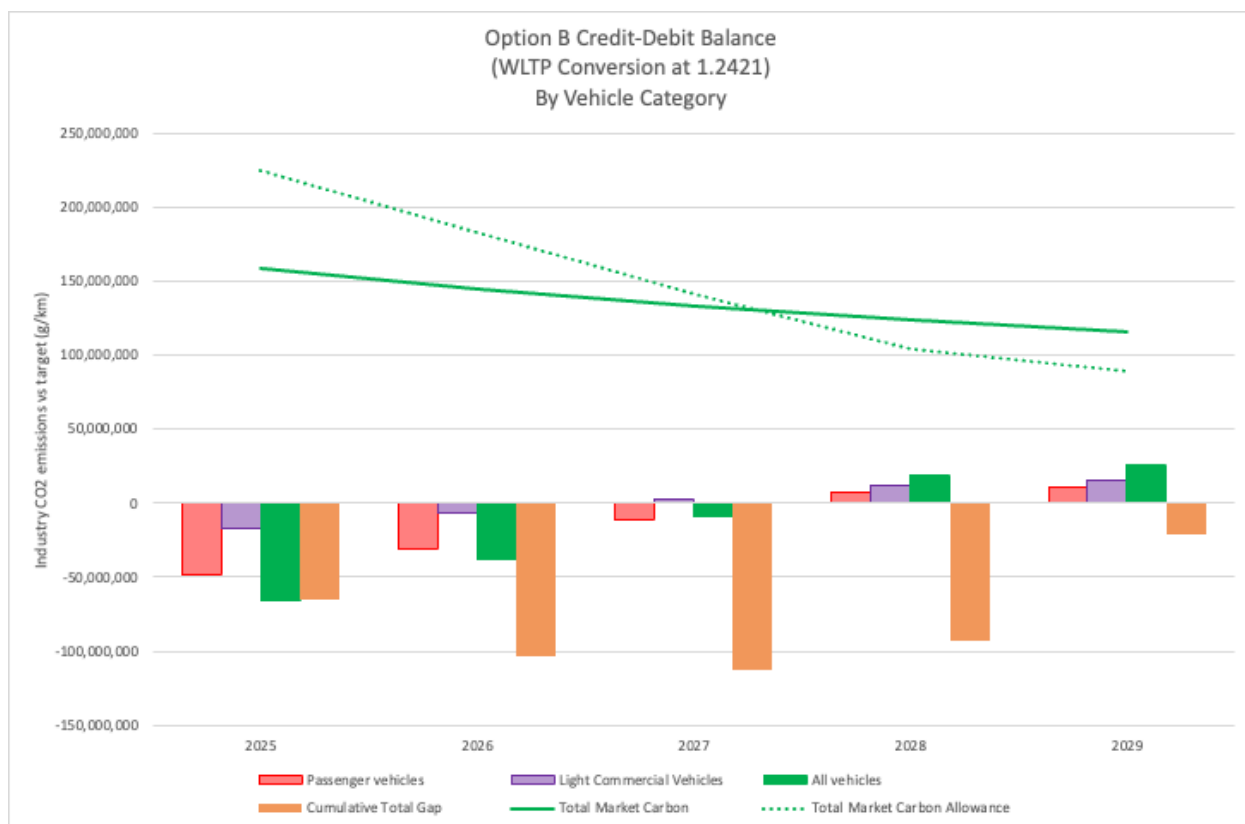
## 2 - CO2 outcomes to 2029

Based on the S&P Global Mobility forecast and CO2 data, Tesla analysis suggests that the industry as a whole is already on track to achieve Option B targets. The market achieves the overall CO2 targets in 2025, 2026, and 2027. In 2028 and 2029 the market emits more CO2 than the target, but is able to offset this with credits accrued in 25-27 (even after accounting for credits expiring after 3 years).



In this scenario the Light Commercial Vehicle segment taken as a whole begins to exceed its category target in 2027, but has access to a large stock of available credits accrued across both categories.



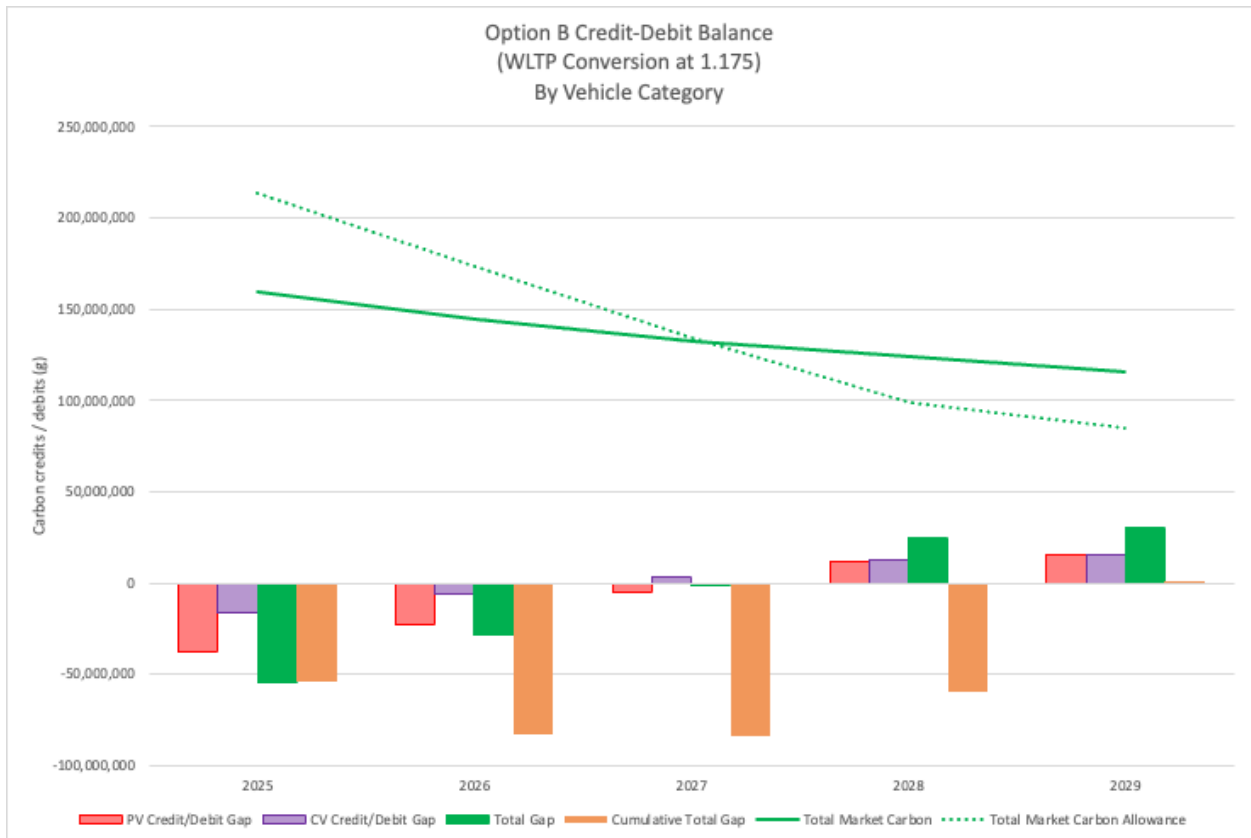
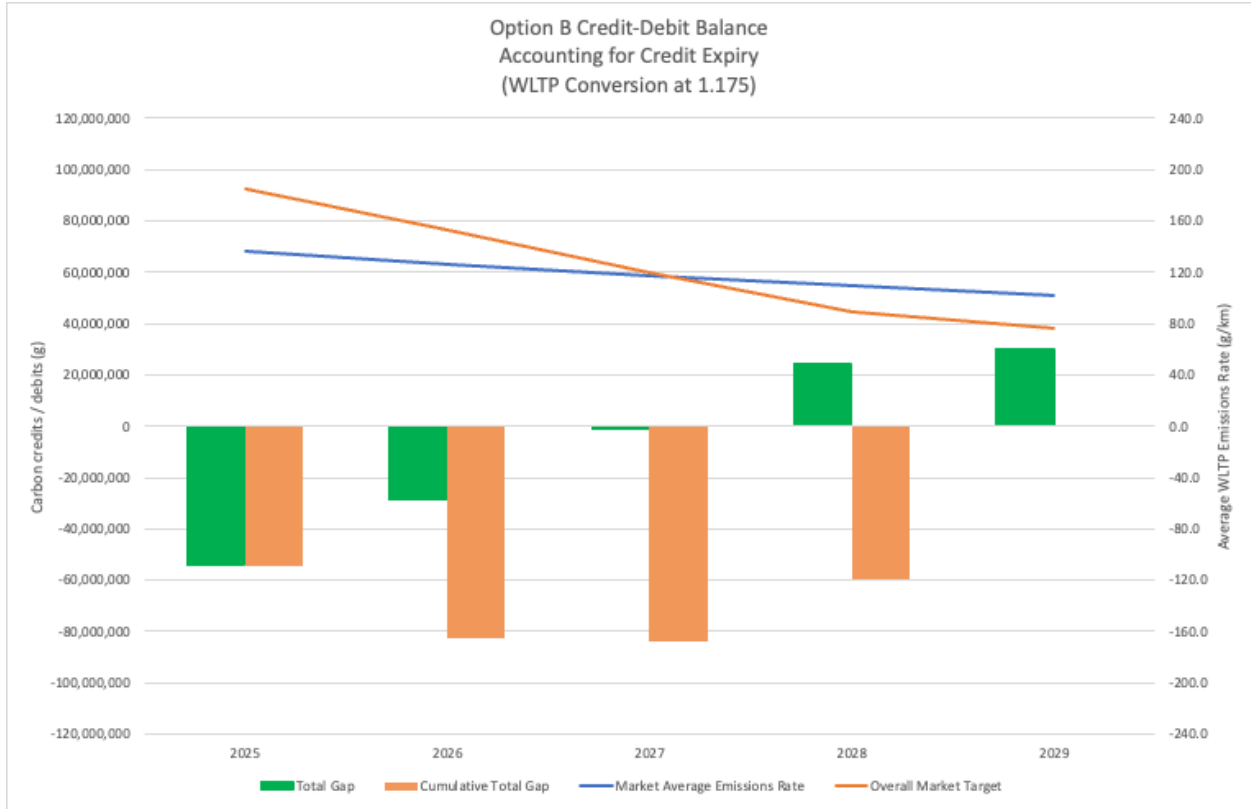


The values above have not been adjusted for individual vehicle mass, as vehicle mass is not available for all current vehicles, nor for future vehicles anticipated by S&P Global Mobility. The application of mass limit curves and breakpoints have significant impacts at the individual vehicle and brand level but much at an industry aggregate level.

Note that the S&P Global Mobility forecast uses WLTP values for CO<sub>2</sub>, as this is the metric anticipated for use in NVES. For the purpose of the analysis above, Option B emission targets have been converted from NEDC to WLTP using a coefficient of 1.2421 as suggested in the Consultation Impact Assessment at page 82.

For the sake of comparison, the below charts illustrate the industry's CO<sub>2</sub> performance per S&P Global Mobility's forecast against Option B targets when those targets are converted from NEDC to WLTP at a factor of 1.175, which reflects the EU Commission's measured conversion factors for passenger (1.1570) and light commercial (1.226) weighted by each category's share of Australian sales.

The resulting targets are still achieved in the early years, with net positive cumulative credits until 2029.





## Regulated entity and data transparency.

Tesla supports the government's proposal to make the regulated entity the organisation that holds the type approval and registers vehicles on the Register of Approved Vehicle (RAV). Tesla supports the government's proposal to establish a Cleaner Car Regulator within the Department of Industry.

It is critical that the Cleaner Car Regulator regularly publish a full dataset of vehicles sold. A strong example is New Zealand's Te Manatū Waka (Ministry of Transport) Ngā tatauranga ākahupapa (fleet statistics) reporting. This includes weekly low emissions vehicle reports and comprehensive statistics about new vehicle sales and the existing vehicle fleet.

Like Australia, Canada has state and territory registration authorities with various data collection practices but has aggregated these into a national reporting framework. In Australia, Tesla considers that this would be a relatively simple process.

**1 - Regulated entities register new vehicle models with the Cleaner Car Regulator.** Type approval holders already register vehicles with RAV but this process does not include mass in running order or CO2. Regulated entities should also register new models with the regulator, including a Marque, Model, Drivetrain, Engine specifics, Country of origin, Market segment, CO2, Gross vehicle mass, Gross combination mass, and Mass in running order, etc.

**2 - Regulated entities submit monthly reports to the Cleaner Car Regulator.** This should detail on a VIN level the delivery and registration dates, postcodes, and variant/trim. Additional data such as vehicle price and buyer type (organisation, individual, lease) could also assist government agencies to track inflation, consumer sentiment, and the impact of policies.

**3 - Cleaner Car Regulator publishes monthly reports.** The Cleaner Car Regulator aggregates the reports, removes VIN numbers, and publishes a simple monthly publication in machine-readable format like JSON or CSV.

The public could quickly build and iterate useful public interfaces on that data as OpenNEM has done for the electricity sector. The Australian Government's initial Data and Digital Government Strategy articulates the Government's aim of "making non-sensitive data open by default" and prioritising "integrity and transparency in service delivery which increases trust in the Australian Government." Both principles are important to apply to fuel efficiency standards.

Furthermore, this vehicle database could serve important safety purposes. When the Australian Government discovered that faulty Takata airbag inflators were a fatal risk and ordered an urgent mandatory recall of millions of vehicles, it had no vin-level dataset against which to track progress.



## Feedback on Impact Analysis Assumptions

### 1 - NEDC to WLTP Conversions

As the data above show, NEDC to WLTP conversions should be navigated with cautious attention, because different approaches will have very significant implications for the efficacy of NVES.

The European Commission has undergone an extensive process of examining conversion factors and comparing declared WLTP values for 2020 vehicles to measured results, which is detailed in the recent paper “2025 and 2030 CO<sub>2</sub> emission targets for Light Duty Vehicles” by the European Commission Joint Research Centre for Policy.

The central issue is that the European Commission set targets based on CO<sub>2</sub>/km values declared by carmakers in 2020. Testing revealed that carmakers had in some places significantly overstated CO<sub>2</sub> emissions in 2020. As the Commission noted “Overdeclaration is an issue that occurred in the past and may still occur to some extent for justifiable reasons. Manufacturers overdeclare the CO<sub>2</sub> emission values in order to avoid failure during the CoP testing of new vehicles. However, the overdeclaration in 2020 had quantifiable implications on the targets’ baseline definition from 2021 to 2024, since the translation from NEDC based targets to WLTP based ones relied on the 2020 data.”<sup>14</sup>

Because the CO<sub>2</sub> emissions carmakers declared in 2020 were higher than actual emissions, carmakers have been able to meet EU targets in part simply by declaring emissions more accurately during the transition to WLTP measurements.

The impact of this has been significant. The EU Commission found that passenger vehicles overdeclared emissions by an average of 5.9g or 4.8%, while light commercial vehicles declared emissions 9.7g or 5.1% higher.

The eventual translation of NEDC to WLTP figures for the Australian NEVS will be a detailed and technical process which will surely examine this and other evidence to arrive at conversions that are as accurate as possible.

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<sup>14</sup> “2025 and 2030 CO<sub>2</sub> emission targets for Light Duty Vehicles” by the European Commission Joint Research Centre for Policy. Page 25



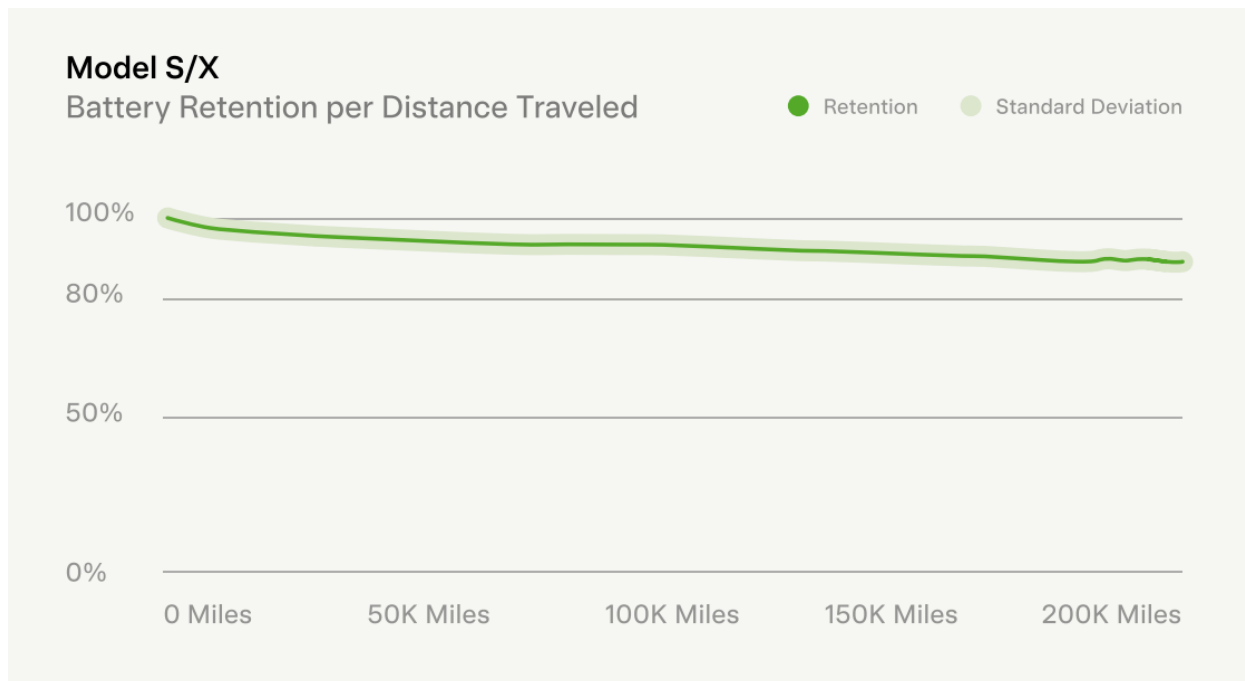
## 2 - Battery replacement assumptions

The Consultation Impact Assessment assumes that EVs batteries will need to be replaced every 12 years as this is 1.5x the standard 8 year warranty on EV batteries. Tesla considers this assumption to be extremely conservative.

Tesla has significant longitudinal data spanning over 10 years across a large fleet of vehicles, the results of which were summarised in our 2022 Impact Report. We estimate that a vehicle gets scrapped after approximately 320,000 km of usage in the U.S. and roughly 240,000 km in Europe. Even after 320,000 km of usage, our batteries lose just 12% of their capacity on average.

At average Australian mileage of 12,100km per year, a vehicle will have traveled just 145,000 km after 12 years, less than half Tesla's estimated lifespan for vehicles. On average a vehicle at 145,000km will have over 90% of battery capacity intact.

Mileage is only one factor in battery capacity retention; battery age is also a major factor. Retention figures at lower mileages above likely reflect the impact of age while higher mileage values, which come from high-utilization vehicles, likely reflect less influence from battery age. Performance of newer chemistries (not yet shown here) can vary and we plan to expand disclosure once we have sufficient data.





## Appendices

Appendix 1 - Graphic provided to [News.com.au](https://www.news.com.au)

### Emissions standards to send car prices soaring

How Australia's top 20 cars will fare under proposed new emissions standards.





Appendix 2 - Graphic in [Daily Mail](#).

<b>FORD RANGER</b>  <b>+\$6150</b>	<b>TOYOTA HILUX</b>  <b>+\$2690</b>	<b>ISUZU UTE D-MAX</b>  <b>+\$2030</b>
<b>TOYOTA RAV4</b>  <b>+\$2720</b>	<b>MG ZS</b>  <b>+\$3880</b>	<b>TESLA MODEL Y</b>  <b>-\$15 390</b>
<b>TOYOTA LANDCRUISER</b>  <b>+\$13 250</b>	<b>MITSUBISHI OUTLANDER</b>  <b>+\$4090</b>	<b>MAZDA CX-5</b>  <b>+\$4460</b>
<b>HYUNDAI TUCSON</b>  <b>+\$5750</b>	<b>TOYOTA PRADO</b>  <b>+\$4960</b>	<b>HYUNDAI I30</b>  <b>+\$7130</b>
<b>TOYOTA COROLLA</b>  <b>+\$1280</b>	<b>MAZDA BT-50</b>  <b>+\$2080</b>	<b>TESLA MODEL 3</b>  <b>-\$15 940</b>
<b>MITSUBISHI TRITON</b>  <b>+\$8670</b>	<b>SUBARU FORESTER</b>  <b>+\$3270</b>	<b>MAZDA CX-3</b>  <b>+\$2480</b>
<b>KIA SPORTAGE</b>  <b>+\$4810</b>	<b>MG MG3</b>  <b>+\$3280</b>	








 +5  
View gallery



Appendix 3 - Graphic on [Today Show](#)

## CAR PRICE CHANGES\*

UNDER PROPOSED EMISSION STANDARDS

  <b>Ranger</b>   <b>Land Cruiser</b>	↑	\$6150	↑	 <b>ISUZU D Max</b>   <b>Model Y</b>	↑	\$2030	↓	\$15,390
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\*Under proposed emissions standards, Federal Chamber of Automotive Industries

**Today**

7:21

**NEW CARBON RULES**

**POPULAR CAR MAKERS COULD FACE FINES UNDER NEW RULES**



CANB 🌤️ 26°





# Organisation questionnaire response

**Privacy Setting:** I agree for my response to be published with my name and position withheld.

<b>What organisation do you represent?</b>  (required)	Tesla
<b>Please rank the proposed options in order of preference.</b>  (optional)	Option A - 3rd, Option B - 2nd, Option C - 1st
<b>Briefly, what are your reasons for your choice?</b>  (optional, 3000 character limit)	Tesla supports the Government’s preferred Option B, but considers that Option C may be achievable given strong forecasts of low emission vehicle uptake. The Department of Infrastructure, Transport, Regional Development, Communication and the Arts (DITRDCA) has produced two proposals (Option B and Option C) that are robust, elegant, transparent, and effective. If implemented as proposed, the New Vehicle Efficiency Standard (NVES) would be a world-class policy.
<b>Do you support the Government's preferred option (Option B)?</b>  (optional)	Yes
<b>Do you have any feedback on the analysis approach and key assumptions used?</b>  (optional, 3000 character limit)	The analysis approach and key assumptions are on the whole very sound and well-supported by extensive data. Some feedback battery longevity and WLTP conversion factors has been provided in Tesla’s submission.
<b>Briefly, describe how the NVES might impact your organisation</b>  (optional, 3000 character limit)	A strong and robust NVES is the most important policy lever government has to accelerate the transition to zero emission vehicles in Australia. Tesla warmly welcomes more competition and progress in the Australian EV market.
<b>Who should the regulated entity be?</b>  (optional, 3000 character limit)	Tesla supports the government’s proposal to make the regulated entity the organisation that holds the type approval and registers vehicles on the Register of Approved Vehicle