



## **Just get it done**

### **New Vehicle Efficiency Standard**

Tony Wood, Alison Reeve, and Richard Yan

## Overview

The stated objective for the federal government's proposed New Vehicle Efficiency Standard (NVES) is to save Australians money on fuel, stimulate the provision of more efficient vehicles into the Australian market, and reduce carbon dioxide (CO<sub>2</sub>) emissions from new cars. Australia is the only developed country, apart from Russia, to not have such a standard.

The government intends to apply the standard to passenger and light commercial vehicles, currently responsible for about 12 per cent of Australia's greenhouse gas emissions. There is bipartisan support for an economy-wide target of net-zero emissions by 2050. This target will not be met unless transport emissions are reduced.

A NVES sets a limit on emissions as grams of CO<sub>2</sub> per kilometre. That limit is reduced over time, in line with the emissions outcome targeted by the policy. The standard is applied at the fleet level, leaving vehicle suppliers to decide how to reduce emissions across their range of the vehicles, whether petrol, diesel, or electric.

Of three design options, the government prefers option B that would cut emissions from new vehicles by 60 per cent over the next five years. It would bring Australia roughly into line with the US. The target also aligns with reaching zero emissions from new vehicle sales by 2035, and across the entire fleet by 2050.

Implementing the preferred option has two clear benefits. First, the proposed option is in line with Australia's climate change objectives. Second, implementation is now urgent because, with a typical vehicle life of up to 20 years, 100 per cent zero-emissions sales by 2035 is required to hit net zero by 2050.

With many uncertainties remaining over the rate of adoption of zero-emissions vehicles, the proposal to review the scheme in 2026 is also a very good idea.

But the government should reconsider its decision to set different targets for passenger vehicles and light commercial vehicles, instead of a single set of targets. It is less economically efficient, and puts emissions reductions at risk via a perverse incentive. Experience overseas has shown that the steady increase in light commercial vehicle sales has eaten away at the emissions-reduction gains. Whatever the targets, the 2026 review could be an opportunity to ensure the intended outcomes are being achieved.

The government's announcement has revived some criticisms that a fuel efficiency standard will 'end the weekend'. It will not, particularly since the targets are in line with those in the US and almost certainly achievable without major negative impacts on consumers.

It is true that the average price of lower-emissions vehicles may increase, but on average by about only 1 per cent. Lower fuel and maintenance costs mean that consumers will quickly be better off than they otherwise would be – and will be far better off in the long term.

Other issues with the transition to battery-electric vehicles remain. For example, the growth in demand for charging infrastructure will continue. All levels of government should continue to work with industry on multiple initiatives to ensure drivers can be confident they can recharge where and when needed.

The federal government has implemented the Safeguard Mechanism to reduce industrial emissions, alongside progress already being made in cutting electricity emissions. The proposed NVES fills the next biggest gap and should proceed with no further delay.

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## 1 Background and context

This submission is made by Tony Wood, Alison Reeve, and Richard Yan of the Energy and Climate Change Program at Grattan Institute. Grattan Institute is an independent think tank focused on Australian domestic public policy. It aims to improve policy by engaging with decision-makers and the community.

In February 2024, the federal government announced three options for Australia's first emissions standard for new vehicles. This was done via a Consultation Impact Analysis, *Cleaner, Cheaper to Run Cars: The Australian New Vehicle Emissions Standard*. The government prefers the middle-ground option and wants to have the policy in operation by 1 January next year.

This submission responds to that analysis paper. We do not comment on the full detail of the paper nor address all of the questions it raises. Rather, we focus on issues where, based on our own published research, we have relevant positions.

### 1.1 Grattan reports have argued for a NVES

In 2021, Grattan published two major reports related to transport emissions, with both recommending declining emissions standards as a central policy initiative that would contribute to meeting Australia's emissions-reduction targets.

The first of these reports, *Towards net zero: Practical policies to reduce transport emissions*,<sup>1</sup> was concerned with ensuring that the transport sector contributes to meeting Australia's targets, even in the absence of a target for the sector. Our analysis was in the context of government projections<sup>2</sup> that showed annual transport sector emissions rebounding

from about 90 million tonnes during the COVID-19 crisis to more than 100 million tonnes by 2030.

Our recommendation was for the federal government to 'Set a mandatory fleet emissions standard, applied to the sale of all new light vehicles, tightening to zero emissions by 2035 to set an end date for sales of new petrol and diesel light vehicles'.

The second report, *The Grattan car plan: Practical policies for cleaner transport and better cities*,<sup>3</sup> approached the issue from the perspective of Australia's broader transport challenges. Our recommendation was that 'The Government should impose a single annual average emissions standard, or ceiling, covering all new light vehicle sales. The ceiling should come into force no later than 2024 and not exceed 143 grams of carbon per kilometre (g/km). It should not exceed 100g/km by 2027 and 25g/km by 2030. Carbon emissions from new vehicles under the ceiling should fall to zero by 2035'.

It has taken far too long for successive governments to address this policy. This submission emphasises the case for the NVES while highlighting areas where there are potential risks to be managed.

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1. Wood et al (2021).

2. DCCEEW (2023).

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3. Terrill et al (2021).

## 2 The case for the NVES

Australia has a legislated emissions-reduction goal of 43 per cent below 2005 levels by 2030 and net-zero emissions by 2050.

Recent policy announcements mean that the 2030 target is within reach. These announcements include the Safeguard Mechanism for industrial emissions, and the Capacity Investment Scheme for electricity generation. But Australia is not on track to hit the 2050 target. In the absence of an economy-wide approach, Australia can and should act now to create momentum towards the net-zero goal across all sectors. This should include the transport sector, which was responsible for 20 per cent of Australia's emissions in 2022.

Annual emissions from transport grew from 82 million tonnes in 2005 to 91 million tonnes in 2022.<sup>4</sup> The reasons include population growth, larger vehicles, increased freight movements, and more flights. Emissions dropped sharply, by 7 million tonnes, in 2020 due to the COVID-19 pandemic, but the federal government projects they will rebound and reach 102 million tonnes by 2030.

The best way to cut transport emissions is to switch to zero-emissions vehicles, mainly battery electric vehicles, in the light vehicle fleet. The range, performance, upfront price, and total ownership costs of zero-emissions vehicles are rapidly improving. But relying on technology and market forces alone won't be enough to get on track for net zero by 2050.

### 2.1 Reducing transport emissions must begin now

The vehicle fleet takes more than 20 years to replace; any new petrol and diesel cars sold in the 2030s could still be in use after 2050. Australia needs a national fleet emissions standard for new passenger

and light commercial vehicles, and the standard should tighten to zero emissions by 2035. This would signal an end date for the sale of new petrol and diesel light vehicles, consistent with other major economies and with International Energy Agency advice. And it would encourage car manufacturers to supply low- and zero-emissions vehicles that meet Australian consumers' range and performance demands.

Cutting emissions in the light vehicle fleet would ease the pressure to find emissions reductions in other modes of transport, such as aviation and long-distance trucking, where affordable alternatives to fossil fuels are harder to identify.

Action today is crucial to avoid locking in emissions for decades to come, and to ensure the transport sector contributes to Australia reaching net zero by 2050.

### 2.2 Option B sets the right direction

Option B would reduce emissions from new vehicles in Australia to align with the United States' proposed standard over five years. If it was then simply extended beyond 2030, it would reach zero by 2035 (see Figure 2.1). On that basis, the sub-sector's emissions would be falling in line with the 2050 objective. This is probably the minimum acceptable position within the overall transport sector, since the other sub-sectors (heavy vehicles, rail, aviation, etc) may not be following similar trajectories.

A more risk-sensitive approach would be to use the proposed 2026 review to assess overall progress. It may be that a continuation of the 2025-29 reduction pathway becomes a more prudent decision for the NVES. This prospect should be formally imbedded in the legislation.

Option A should be rejected.

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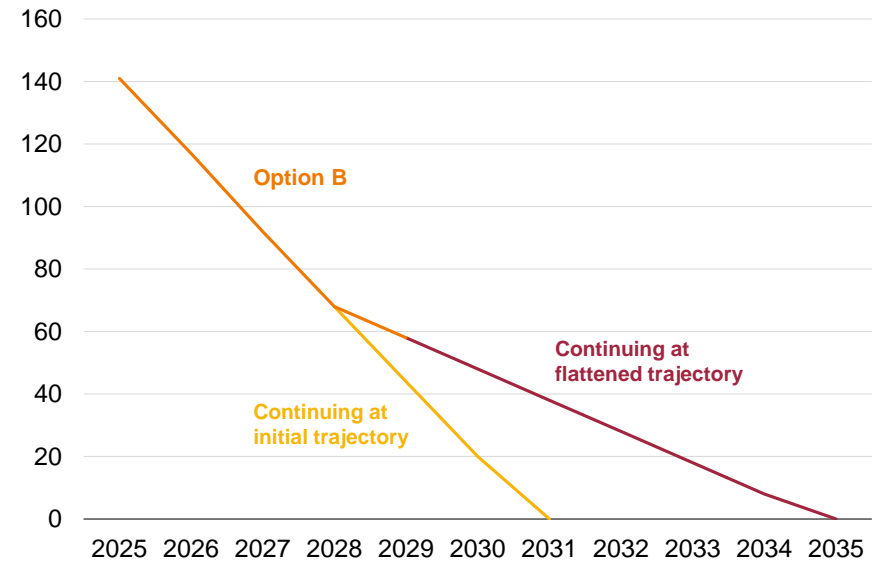
4. DCCEEW (2023).

- It achieves a level of abatement that is so small it hardly justifies the expenditure of political capital.
- It puts SUVs in the light commercial vehicle sub-sector, meaning they have a much weaker target.
- It includes super-credits that means manufacturers gain additional credits for doing nothing.
- It would leave Australian with a significant number of petrol and diesel vehicles in the years ahead, leaving harder decisions to come.

Option C is a more ambitious target. Given the benefits of Option B and the challenges of just getting it implemented, it would be prudent keep the more ambitious option open for consideration in the review process.

**Figure 2.1: For passenger vehicles, continuing Option B at even the flattened trajectory gets you to zero by 2035**

Grams of CO<sub>2</sub> per kilometre



Notes: Initial trajectory decreases at a rate of 24g CO<sub>2</sub>/km per year, commensurate with the rate of decrease between 2025 and 2028. Flattened trajectory decreases at a rate of 10g CO<sub>2</sub>/km per year, commensurate with the rate of decrease between 2028 and 2029.

Source: Grattan analysis.

## 3 Managing the risks

### 3.1 Vehicle costs are unlikely to be a problem

Three cost-related concerns have been raised against the NVES. The first is raised by the car industry. The industry says it supports the change in principle, but that the rate of decline in the standard is too onerous.

This claim cannot be justified on the basis of the policy being unexpected. The prospect of introducing vehicle emissions standards is hardly a surprise, having been discussed for at least the past 20 years.<sup>5</sup> There have been several attempts at introducing policies in this area, including by Prime Minister Kevin Rudd in 2007. Developed via a Vehicle Efficiency Working Group, the proposed standards were abandoned following the 2013 change of government. In 2017, work by the Department of Infrastructure and Regional Development for the Coalition Government argued that a fuel efficiency standard could save motorists up to \$519 a year by 2025. It never proceeded against strong objections from industry and within the Coalition.

The onerous argument is also not justified by concerns about the availability of conforming vehicles. Battery-electric vehicles and efficient internal combustion vehicles have been widely available for several years now and are improving all the time.

Finally, the decline rate is as onerous as it needs to be for Australia to meet its emissions-reduction targets. It would have been easier if we had begun 20 years, but climate change is unforgiving and we cannot change history – and we need to get to net-zero emissions by 2050.

The second objection, raised by the Federated Chamber of Automotive Industries, argued that the NVES would cost \$38 billion over five

years. But this calculation is based on the assumption that neither vehicle manufacturers nor car buyers will change their behaviour. Instead, the manufacturers would pay the penalty cost and Australians would continue to buy inefficient vehicles. This assertion is precisely the opposite of the intent of the policy and of the experience in other countries. When vehicle efficiency standards are introduced, manufacturers do make more efficient cars and consumers do buy them.

The third objection is that the cost of new cars would rise, to the detriment of consumers. But published Grattan Institute analysis<sup>6</sup> found that the average new car price may increase by about \$500, or about 1 per cent – and that cost increase ignores the benefits of lower running costs that more than pay for the price increase.

### 3.2 Using two standards creates a perverse incentive

As described in our 2021 *Towards net zero* report,<sup>7</sup> there is a risk that the structure of the NVES leads to gaming.

The decision to set different targets for passenger vehicles and light commercial vehicles, instead of a single set of targets, seems to be modelled on similar approaches overseas. But it is less economically efficient, and puts emissions reductions at risk via a perverse incentive.

Many jurisdictions overseas have opted to apply two distinct emissions targets to new vehicle sales – one for passenger vehicles, and a more lenient target for light commercial vehicles. But the international experience demonstrates clear shortfalls in this approach.

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5. Transport Energy/Emission Research (2019).

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6. Terrill et al (2021).

7. *ibid* (p. 24)

In the US, for example, although targets within each segment have consistently been met, the effectiveness of the scheme has been undermined because people have continued to abandon passenger vehicles in favour of SUVs and light trucks. Across its entire fleet, the US recorded an increase in average vehicle emissions from new car sales in 2019, compared to 2018 – despite most manufacturers meeting their targets. There have been similar problems, although to a lesser extent, in many EU countries.

The federal government will need to monitor this issue. The proposed 2026 review could be an opportunity to make the targets more stringent to ensure the intended outcomes are being achieved.

A single target system also provides manufacturers with more flexibility in how they reach their targets. Australia should adopt a single target.

### 3.3 Uncertainties justify a formal review

While Australia can learn from the experience of other jurisdictions with emissions standards, issues are likely to arise during the years ahead that are currently uncertain. In particular, the rate of adoption of battery-electric vehicles in Australia, and the driving/charging behaviour of Australian drivers, is uncertain at this very early stage.

Uncertainties justify a formal review as the government is proposing. Slow progress may justify adjustment to the fleet standard and its rate of decline. The terms of the review should be clearly defined to provide predictability for the industry.

### 3.4 Other topics from the issues paper

#### 3.4.1 Charging infrastructure

Other issues with the transition to battery-electric vehicles remain. For example, the growth in demand for charging infrastructure will continue. All levels of government should continue to work with industry on

multiple initiatives to ensure drivers can be confident they can recharge where and when needed.<sup>8</sup>

Most car trips in Australia are short. About 99 per cent of people who drive to work travel less than 100km to get there – well within the range of a typical electric vehicle battery. It seems likely that most battery-electric vehicle drivers would charge their cars at home, or at work if a car space is provided, rather than needing to rely on widespread public charging stations.

Charging availability is a ‘chicken and egg’ problem: worry about where to charge is the single most cited factor in discouraging the purchase of an electric vehicle, but it is difficult to justify significant investment in charging infrastructure when vehicle numbers are so low.

People who live in apartments, who rent, or who do not have off-street parking may find it difficult to charge a battery-electric vehicle at home. Unless these problems are solved, electric vehicles may struggle to grow beyond about 60 per cent of the fleet.

The National Construction Code has been amended to require all new buildings (other than detached houses and non-habitable buildings) to include provisions for future electric vehicle charging in car parks. Buildings must now be fitted with control systems that can manage and schedule charging of electric vehicles and balance this against other electricity demand in the building. And they must be able to meet a minimum charging load, related to the number of car spaces and the likely electricity demand of different charging patterns.

However, this leaves parking provision in existing car-parks unaddressed. Governments should develop policies to encourage retrofitting of charging to existing car-parks.

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8. Wood et al (2021).



Looking further into the future, the prospect of many battery-electric vehicles being charged at the same time could cause electricity demand surges – much like air-conditioning loads on hot days do now. To protect against this, tariff reform and the installation of charging infrastructure will need to be coordinated. Car owners and electricity networks would benefit if vehicles were charged when there's excess electricity capacity and energy is cheap, such as during the middle of the day. But this will happen only if the price signal is right and if charging points are located where the cars are in the middle of the day – such as at workplaces and public car-parks.

Making sure 'smart' charging points are widely distributed so that the vehicle charging load can be managed efficiently would be a prudent move. Governments should plan for this early to avoid a repeat of the unintended consequences for the electricity grid caused by the rapid expansion of rooftop solar.

## Bibliography

- DCCEEW (2023). *DCCEW 2023, Australia's emissions projections 2023*, Department of Climate Change, Energy, the Environment and Water, Canberra, November. <https://www.dcceew.gov.au/climate-change/publications/australias-emissions-projections-2023>.
- Terrill et al (2021). Terrill, M., Burfurd, I. and Fox, L. *The Grattan car plan: Practical policies for cleaner transport and better cities*. 2022-08. Grattan Institute. <https://grattan.edu.au/wp-content/uploads/2022/08/Grattan-Truck-Plan-Report.pdf>.
- Transport Energy/Emission Research (2019). *Vehicle CO2 emissions legislation in Australia - A brief history in an international context*. [https://www.transport-e-research.com/\\_files/ugd/d0bd25\\_0e5b82c440c7482a8e0d645f2d931f57.pdf?index=true#:~:text=In%202010%2C%20the%20Australian%20Government,C'%20in%20the%20chart\)..](https://www.transport-e-research.com/_files/ugd/d0bd25_0e5b82c440c7482a8e0d645f2d931f57.pdf?index=true#:~:text=In%202010%2C%20the%20Australian%20Government,C'%20in%20the%20chart)..)
- Wood et al (2021). Wood, T., Reeve, A. and Ha, J. *Towards net zero: Practical policies to reduce transport emissions*. 2022-08. Grattan Institute. <https://grattan.edu.au/wp-content/uploads/2021/04/Towards-net-zero-Practical-policies-to-reduce-transport-emissions-Grattan-Report.pdf>.



# Organisation questionnaire response

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

|  |  |
|--|--|
| <b>What organisation do you represent?</b><br><br>(required)   | Grattan Institute                              |
| <b>What is your name?</b><br><br>(required)  | Tony Wood                                      |
| <b>What is your position at the organisation?</b><br><br>(required)  | Program Director, Energy and Climate Change    |
| <b>Please rank the proposed options in order of preference.</b><br><br>(optional)  | Option A - 0th, Option B - 0th, Option C - 0th |
| <b>Briefly, what are your reasons for your choice?</b><br><br>(optional, 3000 character limit)                             | NULL   |
| <b>Do you support the Government's preferred option (Option B)?</b><br><br>(optional)                                      | NULL   |
| <b>Do you have any feedback on the analysis approach and key assumptions used?</b><br><br>(optional, 3000 character limit) | NULL   |
| <b>Briefly, describe how the NVES might impact your organisation</b><br><br>(optional, 3000 character limit)               | NULL   |
| <b>Who should the regulated entity be?</b><br><br>(optional, 3000 character limit)   | NULL   |