Parliamentary Budget Office

ECR-2025-3700

Powering past coal and gas – tightening vehicle emissions standards	
Party:	Australian Greens

Summary of proposal:

The proposal would increase the average emissions standard of carbon dioxide on the fleet-wide passenger vehicles sold by manufacturers in Australia with the following schedule:

- 105g/km in 2025-26
- 84g/km in 2026-27
- 63g/km in 2027-28
- 42g/km in 2028-29
- 21g/km in 2029-30
- 0g/km in 2030-31

The penalty for non-compliance is $100 per one excess gram of carbon dioxide per km over the set standards, multiplied by total passenger vehicle sold in Australia for the given year.

From 1 July 2030 the sale of new internal combustion engine passenger vehicles would be banned.

The proposal would start on 1 July 2025.

Costing overview

The proposal would be expected to increase the fiscal balance by around $4.35 billion and underlying cash balance by around $4.4 billion over the 2025-26 Budget forward estimates period (see Table 1). This impact reflects an increase in administered tax from the collection of carbon dioxide penalties, partially offset by a reduction in fuel excise collected.

The fiscal balance and underlying cash balance impacts are different due to differences between the timing of when fuel excise is incurred and when paid.

The proposal would be expected to have an impact beyond the 2025-26 Budget forward estimates period. A breakdown of the financial implications (including separate public debt interest (PDI) tables) over the period to 2035-36 is provided at Attachment A.

Table 1: Powering past coal and gas – tightening vehicle emissions standards – Financial implications ($m)[(a)(b)]

	2025-26	2026-27	2027-28	2028-29	**Total to 2028-29**
Fiscal balance	1,920.0	1,420.0	840.0	170.0	**4,350.0**
Underlying cash balance	1,930.0	1,430.0	860.0	190.0	**4,410.0**

(a) A positive number represents an increase in the relevant budget balance; a negative number represents a decrease.
(b) PDI impacts are not included in the totals.

Uncertainties

This costing is highly uncertain and is particularly sensitive to the assumptions about manufacturers' compliance with the proposed emission standard and how consumers respond to the new purchasing incentives. The assumptions are also dependent upon other factors such as:

- technological improvement and cost control in manufacturing EVs
- automakers' commitment to electric vehicle manufacturing, and response to the *New Vehicle Emissions Standard Act 2024* (NVES)
- investment in charging infrastructure (including public, home and workplace options) across Australia
- variations in policies to support electric vehicle uptake by state and territory governments
- fluctuations of world oil prices, and thus Australian petrol and diesel prices
- changes in the RBA cash rate.

As there is limited information and data available to determine the potential impact of all factors, the estimates have a high level of uncertainty.

Key assumptions

The Parliamentary Budget Office (PBO) has made the following assumptions in costing this proposal:

- The average carbon dioxide emission of all passenger vehicles sold would start from a baseline of 157 gram per km in 2024-25, based on the average emissions of electric vehicles, internal combustion engine vehicles, and hybrid vehicles, weighted by actual sales volume in the 2024 December quarter.
- The proposed emissions standards will change the annual sales mix of electric vehicles, internal combustion engine, and hybrid Vehicles, leading to a steady and linear decrease in average emissions from all passenger vehicles sold between 2025-26 and 2030-31.
- From 2030-31, only electric vehicles will be sold.
- Baseline emissions reflect the projected sales mix of the various types of vehicles over the medium-term period, based on the latest Australian Energy Market Operator (AEMO) projection of electric vehicle take-up rate.
  - Electric vehicle take-up rate in Western Australia and the Northern Territory are the same as those projected by AEMO.
- Manufacturers would pay the penalties during the year based on periodic sales information. This is different to the assumptions for the NVES, as this proposed emissions standard does not allow for credits or trading of credits, and the carbon thresholds are more stringent.

- All departmental expenses will be absorbed by the New Vehicle Efficiency Standard Regulator, and NVES systems utilised.

Methodology

Total penalties collected

Total penalties collected from vehicle manufacturers each year were calculated by multiplying the number of new passenger vehicles sales in Australia each year by the average excess grams per km of carbon dioxide above the standards incurred by all fleets in Australia. The excess being the difference between:

- The estimated annual average emissions incurred by all fleets in Australia as a result of the proposed emission standards (a linear fall from 157 grams per km in 2024-25 to 0 grams per km in 2030-31).
- The average emission standard as specified in the proposal.

Interaction with fuel excise

An increased take-up rate of vehicles with lower emissions under the proposal would result in the decreased consumption of fuel which in turn leads to a reduction in fuel excise revenue.

Financial implications were rounded consistent with the PBO's rounding rules.[1]

Data sources

Australian Bureau of Statistics (2021), Motor Vehicle Census, Commonwealth of Australia.

Australian Energy Market Operator (2024), *2024 Forecasting Assumptions Update*, Commonwealth of Australia. Accessed 15 May 2025.

Bureau of Infrastructure and Transport Research Economics (2024), *Road Vehicles Australia, 31 January 2024*, Department of Infrastructure, Transport, Regional Development, Communications and the Arts, Commonwealth of Australia. Accessed 15 May 2025.

Commonwealth of Australia (2025) *Pre-election Economic and Fiscal Outlook 2025,* Commonwealth of Australia.

National Transport Commission (2022), *Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2021,* Commonwealth of Australia. Accessed 15 May 2025.

National Transport Commission (2023), *Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2022*, Commonwealth of Australia. Accessed 15 May 2025.

New Vehicle Efficiency Standard Act 2024, Commonwealth of Australia.

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[1] https://www.pbo.gov.au/for-parliamentarians/how-we-analyse/pbo-rounding-rules

Attachment A – Powering past coal and gas – tightening vehicle emissions standards – Financial implications

Table A1: Powering past coal and gas – tightening vehicle emissions standards – Fiscal balance ($m)[(a)]

	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	**Total to 2028-29**	**Total to 2035-36**
Revenue													
Administered tax													
Fleet wide emissions cap - CO2 penalties	*2,000.0*	*1,640.0*	*1,270.0*	*870.0*	*440.0*	-	-	-	-	-	-	***5,780.0***	***6,220.0***
Interaction with Fuel Excise	*-80.0*	*-220.0*	*-430.0*	*-700.0*	*-1,050.0*	*-1,510.0*	*-1,900.0*	*-2,320.0*	*-2,730.0*	*-3,130.0*	*-3,630.0*	***-1,430.0***	***-17,700.0***
Total – administered tax	***1,920.0***	***1,420.0***	***840.0***	***170.0***	***-610.0***	***-1,510.0***	***-1,900.0***	***-2,320.0***	***-2,730.0***	***-3,130.0***	***-3,630.0***	***4,350.0***	***-11,480.0***
Total – revenue	**1,920.0**	**1,420.0**	**840.0**	**170.0**	**-610.0**	**-1,510.0**	**-1,900.0**	**-2,320.0**	**-2,730.0**	**-3,130.0**	**-3,630.0**	**4,350.0**	**-11,480.0**
Expenses													
Departmental													
New Vehicle Efficiency Standard Regulator	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Total – expenses	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total (excluding PDI)	**1,920.0**	**1,420.0**	**840.0**	**170.0**	**-610.0**	**-1,510.0**	**-1,900.0**	**-2,320.0**	**-2,730.0**	**-3,130.0**	**-3,630.0**	**4,350.0**	**-11,480.0**

(a) A positive number for the fiscal balance indicates an increase in revenue or a decrease in expenses or net capital investment in accrual terms. A negative number for the fiscal balance indicates a decrease in revenue or an increase in expenses or net capital investment in accrual terms.

\- Indicates nil.

Table A2: Powering past coal and gas – tightening vehicle emissions standards – Underlying cash balance ($m)[(a)]

	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	Total to 2028-29	Total to 2035-36
Receipts													
Administered tax													
Fleet wide emissions cap - CO2 penalties	*2,000.0*	*1,640.0*	*1,270.0*	*870.0*	*440.0*	-	-	-	-	-	-	***5,780.0***	***6,220.0***
Interaction with Fuel Excise	*-70.0*	*-210.0*	*-410.0*	*-680.0*	*-1,020.0*	*-1,470.0*	*-1,870.0*	*-2,290.0*	*-2,690.0*	*-3,090.0*	*-3,590.0*	***-1,370.0***	***-17,390.0***
Total – administered tax	***1,930.0***	***1,430.0***	***860.0***	***190.0***	***-580.0***	***-1,470.0***	***-1,870.0***	***-2,290.0***	***-2,690.0***	***-3,090.0***	***-3,590.0***	***4,410.0***	***-11,170.0***
Total – receipts	**1,930.0**	**1,430.0**	**860.0**	**190.0**	**-580.0**	**-1,470.0**	**-1,870.0**	**-2,290.0**	**-2,690.0**	**-3,090.0**	**-3,590.0**	**4,410.0**	**-11,170.0**
Payments													
Departmental													
New Vehicle Efficiency Standard Regulator	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Total – payments	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total (excluding PDI)	**1,930.0**	**1,430.0**	**860.0**	**190.0**	**-580.0**	**-1,470.0**	**-1,870.0**	**-2,290.0**	**-2,690.0**	**-3,090.0**	**-3,590.0**	**4,410.0**	**-11,170.0**

(a) A positive number for the underlying cash balance indicates an increase in receipts or a decrease in payments or net capital investment in cash terms. A negative number for the underlying cash balance indicates a decrease in receipts or an increase in payments or net capital investment in cash terms.

\- Indicates nil.

Table A3: Powering past coal and gas – tightening vehicle emissions standards – Memorandum item: Public Debt Interest (PDI) impacts – Fiscal and underlying cash balances ($m)[(a)(b)]

	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	Total to 2028-29	Total to 2035-36
Fiscal balance	*43.0*	*119.0*	*175.0*	*206.0*	*207.0*	*170.0*	*103.0*	*14.0*	*-98.0*	*-234.0*	*-395.0*	***543.0***	***310.0***
Underlying cash balance	*32.0*	*100.0*	*161.0*	*199.0*	*207.0*	*179.0*	*120.0*	*36.0*	*-70.0*	*-200.0*	*-355.0*	***492.0***	***409.0***

(a) As this table is presented as a memorandum item, these figures are not reflected in the totals above. This is consistent with the approach taken in the budget where the budget impact of most measures is presented excluding the impact on PDI. If the reader would like a complete picture of the total aggregate, then these figures would need to be added to the figures above. For further information on government borrowing and financing please refer to the PBO's online budget glossary[2].

(b) A positive number for the fiscal balance indicates an increase in revenue or a decrease in expenses or net capital investment in accrual terms. A negative number for the fiscal balance indicates a decrease in revenue or an increase in expenses or net capital investment in accrual terms. A positive number for the underlying cash balance indicates an increase in receipts or a decrease in payments or net capital investment in cash terms. A negative number for the underlying cash balance indicates a decrease in receipts or an increase in payments or net capital investment in cash terms.

[2] Online budget glossary – Parliamentary Budget Office (pbo.gov.au)