



Name: The Australia Institute

Submission date: 6/06/2025

1. Reduce the cost of meeting carbon targets

1. What could be done to improve the cost-effectiveness and alignment of policies to reduce emissions across the industrial, electricity and transport sectors?

An obvious way to reduce the cost of meeting carbon targets is to remove fossil fuel subsidies and other policy settings that make the production and use of fossil fuels cheaper. Australia's largest fossil fuel subsidy is the Fuel Tax Credit Scheme (FTCS), which reduces public revenue by over \$10 billion each year.

The Productivity Commission explained in its 2021 Trade and Assistance Review why it does not consider the FTCS to be a form of industry assistance or a subsidy. The Australia Institute, the OECD, the IMF and many other researchers do consider the FTCS to be a subsidy (see uploaded supporting document). Regardless of what words are used to describe it, no one contests that the FTCS makes fossil fuel use relatively cheaper for precisely the industries that have increased emissions in recent years – mining and transport.

Reform to the FTCS and other measures that assist fossil fuel producers and major users should be an urgent priority. As Danielle Wood, now Chair of the Productivity Commission, wrote in 2023 "if the government is serious about budget repair, it will need to embrace" reform to the FTCS and other measures including increasing Petroleum Resource Rent Tax, a 10% royalty on offshore gas and a carbon tax. (see here:

<https://grattan.edu.au/report/back-in-black-a-menu-of-measures-to-repair-the-budget/>)

Under Ms Wood's leadership, Grattan published articles such as "The fuel tax credit scheme has no good rationale" (<https://grattan.edu.au/news/fuel-tax-credit-scheme-has-no-good-rationale/>) and Fuelling budget repair: How to reform fuel taxes for business (see uploaded supporting document). This document stated that reforms to the FTCS would "improve the efficiency of the tax system, contribute to budget repair, and help Australia hit its target of net-zero emissions by 2050."

Attached to this submission are:

Australia Institute (2024) Australia's Fuel Tax Credits and the debate over fossil fuel subsidies

Grattan Institute (2023) Fueling budget repair: How to reform fuel taxes for business

Australia Institute (2025) Fossil fuel subsidies in Australia 2025

2. Are there gaps in the emissions-reduction policies in the industrial, electricity and transport sectors which should be addressed?

The participant did not respond to this question.

3. Are there any duplicative emissions-reduction policies in the industrial, electricity and transport sectors which could be streamlined?

The participant did not respond to this question.

2. Speed up approvals for new energy infrastructure

1. Are planning and approvals processes for large energy infrastructure taking too long? If so, what causes the most delay?

The participant did not respond to this question.

2. How can planning and approvals processes be sped up without unduly compromising regulatory standards?

The participant did not respond to this question.

3. Should clean energy projects be treated differently to other projects for the purpose of environmental and other approvals? If so, how?

The participant did not respond to this question.

4. What can be done to build local community support for new energy infrastructure projects?

The participant did not respond to this question.

5. Please outline any evidence showing the productivity benefits of faster approvals for energy projects.

The participant did not respond to this question.

3. Encourage adaptation by addressing barriers to private investment

1. What are the barriers and enablers impacting decisions by owner-occupiers, landlords and developers about how housing is built and updated over time so that it is resilient to the effects of climate change?

The participant did not respond to this question.

2. What information do people need to make decisions about where to live, how to build and how to upgrade their homes to appropriately factor in climate change?

The participant did not respond to this question.

3. What are the most cost-effective retrofitting options for improving the resilience of Australia's existing housing stock? What are their costs and benefits?

The participant did not respond to this question.

4. What role might minimum standards play in ensuring the resilience of Australia's housing stock?

The participant did not respond to this question.

5. The impacts of climate change are being factored into the regulation of where and how houses are built in different ways around Australia. What does leading practice look like? Where is there room for improvement? Are there lessons we can learn from other countries?

The participant did not respond to this question.

Cover sheet: Supporting document #1

Australia's Fuel Tax Credits and the debate over fossil fuel subsidies

The Fuel Tax Credits Scheme costs the Federal Budget nearly \$10 billion per year and largely benefits iron ore and coal miners. Researchers at the OECD, IEA and IISD describe it as a fossil fuel subsidy. The OECD has called for its elimination. Australian Government and mining industry representatives dispute the use of the term subsidy, but not its cost to government or benefit to miners.

Rod Campbell, Matthew Ryan, Lilia Anderson
April 2024

INTRODUCTION

Australia's fossil fuel subsidies, particularly the Fuel Tax Credits Scheme (FTCS), are controversial. They have major fiscal and climate impacts and, back at the 2009 G20 forum, Australia committed to phase them out.

In 2010, Australian public servants identified 17 fossil fuel subsidies, worth \$8 billion per year, that were relevant to the G20 pledge, including the FTCS. The public servants' estimates of Australia's fossil fuel subsidies were only made public later, following a Freedom of Information request. The Rudd Labor Government overrode the public servants' work and instead informed the G20 that no such subsidies existed.¹ To this day, Australian Governments acknowledge the cost of the FTCS and other budget items, but simply avoid the term 'subsidy'.

¹ Tingle (2011) *Swan under pressure over fossil fuels*, <https://www.afr.com/policy/energy-and-climate/swan-under-pressure-over-fossil-fuels-20110228-il2j3>

Australia has not only failed to deliver its G20 promise to end 2009 fossil fuel subsidies, but it continues to introduce new ones. The latest Federal Budget commits \$1.5 billion to support new gas exports through Darwin. Again, the Australian Government acknowledges the cost but refuses the term subsidy, even though documents, again obtained under Freedom of Information laws, describe the government's funding as a 'key enabler' of new gas development.²

This briefing note explains the basics of fossil fuel subsidies, the FTCS and summarises the views of international and Australian researchers on the scheme and its categorisation as a subsidy.

WHAT IS A FOSSIL FUEL SUBSIDY?

According to the World Trade Organisation (WTO), of which Australia is a member, a subsidy exists when, among other things:

- (i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);
- (ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits);

Using the WTO definition of a subsidy, The Australia Institute estimates that Australian Governments, state and federal, provided \$14.5 billion in fossil fuel subsidies in 2023-24, the most expensive of which was the \$9.6 billion Fuel Tax Credits Scheme.³

In addition to The Australia Institute, international organisations that specifically include Australia's FTCS in their calculations of fossil fuel subsidies include the OECD, the International Energy Agency (IEA), the International Institute for Sustainable Development (IISD), Overseas Development International (ODI) and Oil Change International. Their work is described in more detail below.

² Davies (2023) *How is Australia trying to sell a major gas expansion? By badging it 'sustainable'*, <https://www.theguardian.com/australia-news/2023/may/19/how-is-australia-trying-to-sell-a-major-gas-expansion-by-badging-it-sustainable>

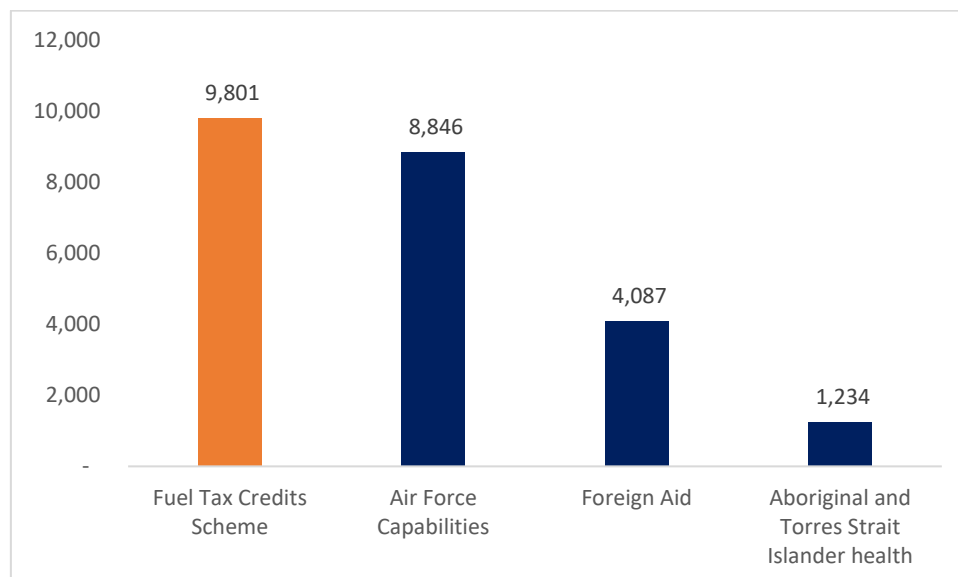
³ Campbell et al (2023) *Fossil fuel subsidies in Australia 2023*, <https://australiainstitute.org.au/report/fossil-fuel-subsidies-in-australia-2023/>

WHAT IS THE FUEL TAX CREDITS SCHEME?

Australia charges a fuel tax (also called fuel excise) of around \$0.47 per litre for diesel, petrol and most commonly used fuels.⁴ This tax will raise around \$20 billion in 2023-24, a significant source of revenue for the Australian Government.⁵

The Fuel Tax Credits Scheme (FTCS) refunds fuel tax paid by certain fuel users – mainly businesses using diesel for machinery, vehicles not on public roads and heavy vehicles that do use public roads.⁶ The FTCS is budgeted to reduce Australian Government tax receipts by \$9.6 billion in 2023-24, making it the 18th largest cost item in the Federal Budget, more than on the Royal Australian Air Force (Figure 1).⁷

Figure 1: Fuel Tax Credits Scheme and other programs, 2023-24



Source: Treasury (2023) *Budget Paper No. 1: Budget Strategy and Outlook*

The overwhelming beneficiary of the FTCS is Australia's mining industry. The benefits of the FTCS are over \$1 billion each year to both the iron ore and coal industries, as shown in Figure 2.

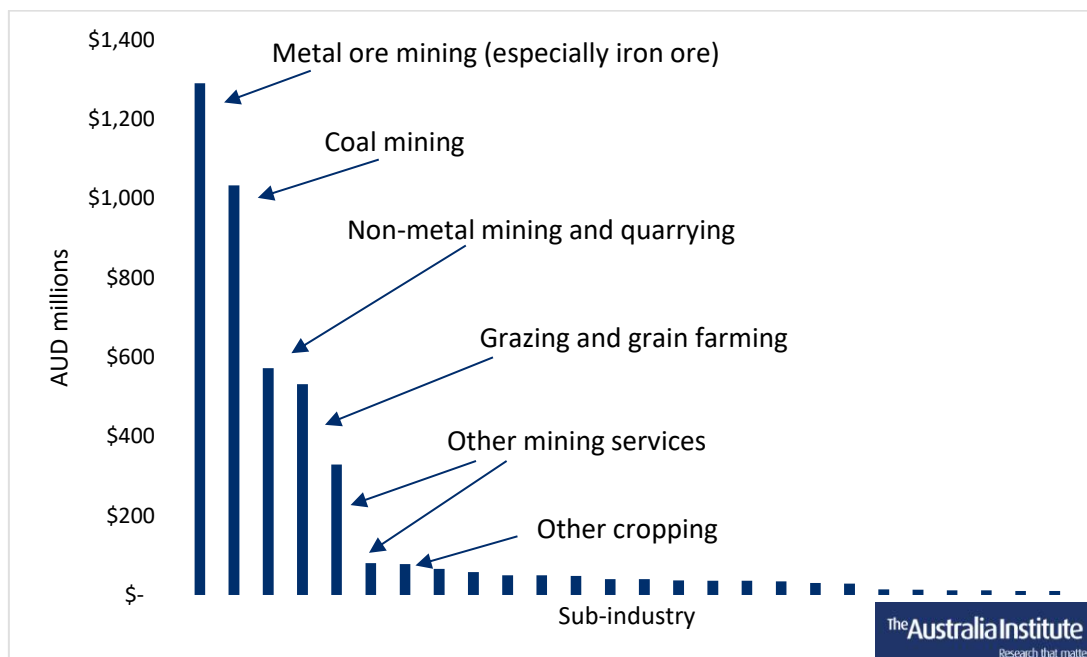
⁴ ATO (2023) *Excise duty rates for fuel and petroleum products*, <https://www.ato.gov.au/Business/Excise-on-fuel-and-petroleum-products/Excise-duty-rates-for-fuel-and-petroleum-products/>

⁵ Australian Government (2023) *Budget Paper 1: Strategy and outlook*, <https://budget.gov.au/content/bp1/index.htm>

⁶ ATO (2023) *Fuel tax credits – business*, <https://www.ato.gov.au/Business/Fuel-schemes/Fuel-tax-credits---business/>

⁷ Australian Government (2023) *Budget Paper 1: Strategy and outlook*, see Table 6.3.1.

Figure 2: Fuel Tax Credits Scheme – benefit by selected sub-industry



Source: Australian Tax Office (2022) Taxation Statistics – Excise Table 4: Excise and fuel schemes

Figure 1 shows that while some parts of the agricultural sector are significant beneficiaries of the FTCS, the vast bulk of the benefit goes to the mining industry.

None of these facts or figures are in dispute. What makes the FTCS controversial is that many researchers label it as a subsidy to fossil fuel users and, in the case of the coal industry, a subsidy to production of fossil fuel. This description as a subsidy has been widely reported in the media and plays a significant role in the debate around Australia’s approach to climate policy.⁸ The Australian Government, mining industry representatives and some researchers reject the term ‘subsidy’, adding to the controversy.

There is also an argument that maintaining access to the FTCS will delay the uptake of newer, lower-emissions technologies in the mining sector. Then-chairman of Fortescue Metals, Dr Andrew “Twiggy” Forrest argued in 2021 that the FTCS was a fossil fuel subsidy, and that miners should lose access from the FTCS from between 2025 to 2030, thereby encouraging the deployment of alternatives to diesel fuel.⁹

⁸ See for example Glenday (2021) *Calls to phase out fossil fuel subsidies after speculation about net-zero emissions target*, <https://www.abc.net.au/news/2021-04-26/scott-morrison-climate-change-fossil-fuel-subsidies-net-zero/100094506>

⁹ Ker (2021) ‘Forrest says diesel rebate should go after 2025’, *Australian Financial Review*, <https://www.afr.com/companies/mining/forrest-says-diesel-rebate-should-go-after-2025-20211123-p59bfk>

IS THIS ABOUT ROAD FUNDING?

Defenders of the FTCS commonly claim that fuel excise funds roads and that the FTCS is justified because the fuel use of mining and agriculture is largely off-road. For example, National Party Leader David Littleproud described the Scheme in 2021 as “a rebate to those users that don’t use public roads”. “If you don’t use those roads and you’re fuelling up your machinery with diesel”, he continued, “then the excise would go to building those roads, we are giving you a rebate because you’re not using them”. On this basis, Mr Littleproud claimed that the tax was “not a subsidy”.¹⁰

The view that companies that do not use public roads should not pay fuel tax relies on a link between fuel tax and road building that is heavily exaggerated. Road funding in Australia has not been based on fuel tax since 1955. Since then, road funding has been based on assessed need and funded from general revenue, aside from some minor, and usually temporary, arrangements.¹¹

The only exception is the Fuel Indexation (Road Funding) Special Account. This was established in 2015 following the Abbott Government’s decision to reintroduce regular updates to fuel excise in line with inflation. The portion of collected fuel excise that comes from this ‘re-indexation’ decision goes into a special account that is required to be given to the states for road projects as approved by the Federal Infrastructure Minister.¹² In 2023, this account received and disbursed just over \$1 billion,¹³ or 5% of the total fuel tax collected, or 8% of the net fuel excise revenue.

To be clear, 95% of fuel tax revenue does not go into any dedicated road infrastructure fund. Like almost all tax revenues, fuel tax goes into “consolidated revenue”, which facilitates the funding of the full range of government expenses.

¹⁰ Evans (2021) *Mining and farming industries savage Andrew Forrest’s bid to phase out fuel credit system*, <https://www.theaustralian.com.au/business/mining-energy/mining-and-farming-industry-savage-andrew-forrests-bid-to-phase-out-fuel-credit-system/news-story/c9a1048816640cd1d88189451ccf038c>

¹¹ For discussion of these exceptions see Terrill et al (2023) *Fueling Budget Repair: How to reform fuel taxes for business*, Box 5: Fuel tax is not used to pay for roads, <https://grattan.edu.au/wp-content/uploads/2023/02/Fuelling-budget-repair-Grattan-report.pdf>

¹² Australian Government (2015) *Fuel Indexation (Road Funding) Special Account Act 2015*, <https://www.legislation.gov.au/C2015A00103/latest/text>

¹³ Australian Government (2023) *Special accounts balances and cash flows report*, <https://www.finance.gov.au/special-appropriations-special-accounts>

Further, the FTCS is not limited to fuel used off road.¹⁴ Heavy vehicles (over 4.5 tonnes) on public roads also receive part of the rebate – or to be precise, they receive a FTC but also pay a road user charge.¹⁵ However, heavy vehicles using public roads cause damage to public roads far in excess of the road user charges that they pay.¹⁶ In this case, the view of the FTCS as a reimbursement for avoided road costs clearly does not apply.

Regardless of any link between road funding and the fuel tax system, taxpayers do not pick-and-choose which taxes they pay to governments based on which services are accessed. In other words, tax is not a user-pays system. Whether an individual or company uses or does not use a particular government service – for example, childcare, aged care, or disability support – has no bearing on whether they ought to be taxed for its implementation. As discussed below, The WTO and other international agencies are clear on this point.

WHO CALLS THE FTCS A SUBSIDY?

In addition to the Australia Institute, a range of Australian and international researchers have either specifically labelled the FTCS a subsidy, include it in their calculation of Australian fossil fuel subsidies, or consider it a support measure in need of reform.

Organisation for Economic Cooperation and Development (OECD)

The OECD publishes regular research on fossil fuel subsidies. It specifically mentions Australia's FTCS and considers it a subsidy,¹⁷ following the World Trade Organisation's definition of a subsidy that includes where "government revenue that is otherwise due is forgone or not collected (e.g. fiscal incentives such as tax credits)."¹⁸ The OECD has

¹⁴ Australian Taxation Office (2023) *Travelling on Public Roads*, <https://www.ato.gov.au/Business/Fuel-schemes/In-detail/Heavy-vehicles/?anchor=Travellingonpublicroads#Travellingonpublicroads>

¹⁵ National Transport Commission (n.d.) *Road user charges*, <https://www.ntc.gov.au/laws-and-regulations/road-user-charges>

¹⁶ Grattan Institute (2023) *Fueling Budget Repair: How to reform fuel taxes for business*. See also National Transport Commission (2022) *Heavy vehicle charges consultation report*, <https://www.ntc.gov.au/sites/default/files/assets/files/Heavy%20vehicle%20charges%20consultation%20report%202022%E2%80%939323.pdf>

¹⁷ OECD (2023) *Fossil fuel support – Aus*, https://stats.oecd.org/Index.aspx?DataSetCode=FFS_AUS

¹⁸ OECD (n.d.) *OECD work on support for fossil fuels*, <https://www.oecd.org/fossil-fuels/methodology/>

called on Australia to “reduce or eliminate fuel tax exemptions for heavy vehicles and machinery.”¹⁹

International Energy Agency (IEA)

The IEA’s recent Energy Policy Review of Australia follows the OECD’s approach:

Fuel tax credits are applied to heavy vehicles for gasoline and diesel and heavy oil use in industry and electricity fuels. Fuel tax credits provide businesses with a rebate of the tax embedded in the price of fuel. In 2020-2021, fuel tax revenue was AUD 19.78 billion and businesses claimed AUD 7.6 billion of fuel tax credits, net of road user charges. This is counted as an indirect fossil fuel subsidy by the OECD...²⁰

International research organisations

The International Institute for Sustainable Development (IISD), Overseas Development International (ODI) and Oil Change International consider Australia’s FTCS to be a fossil fuel subsidy:

Australia’s fossil fuel companies currently benefit from significant tax breaks through the Petroleum Resource Rent Tax (PRRT) and fuel tax credits, among other measures. Recent reforms have done little to decrease these subsidies.²¹

International Monetary Fund (IMF)

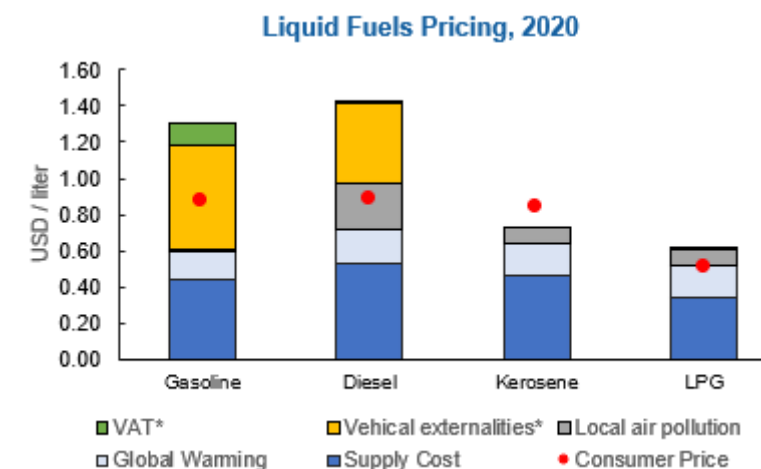
IMF research on Australia’s fossil fuel subsidies does not mention the FTCS specifically. The IMF methodology compares the total market and environmental cost of fossil fuels with the consumer price, as shown in Figure 2 below:

¹⁹ OECD (2024) *Achieving the transition to net zero in Australia*, <https://www.oecd.org/economy/achieving-the-transition-to-net-zero-in-australia-9a56c9d2-en.htm>

²⁰ IEA (2023) *Australia 2023: Energy Policy Review*, <https://www.iea.org/reports/australia-2023>

²¹ IISD, ODI, Oil Change (2020) *G20 Scorecard of Fossil Fuel Funding: Australia*, <https://www.iisd.org/publications/g20-scorecard-australia>

Figure 3: Extract from IMF workbook on Australian fossil fuel subsidies



Source: IMF (2021) Still Not Getting Energy Prices Right

The IMF estimates fossil fuel subsidies by the difference between the consumer price (the red dots) and the environmental and supply costs of the fuel (the stacked bars).²² The FTCS reduces consumer prices for both gasoline (petrol) and diesel, increasing the difference between price paid and total cost, increasing the value of the subsidy under the IMF's approach.

World Bank and World Economic Forum

These organisations do not mention Australia's FTCS specifically, but adopt a definition of fossil fuel subsidy that would certainly include it:

Nature of [fossil fuel] subsidy and subsidy delivery mechanism:

4. Reduction of taxes paid. Examples include exemptions or reductions from taxes normally applied, such as VAT, tax holidays for petroleum profit tax or corporate income tax, and tax credits...^{23,24}

²² IMF (2021) *Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies*, <https://www.imf.org/en/Publications/WP/Issues/2021/09/23/Still-Not-Getting-Energy-Prices-Right-A-Global-and-Country-Update-of-Fossil-Fuel-Subsidies-466004#:~:text=IMF%20Working%20Papers&text=Globally%2C%20fossil%20fuel%20subsidies%20were,percent%20of%20GDP%20in%202025>.

²³ Kojima and Koplow (2015) *Fossil Fuel Subsidies: Approaches and Valuation*, <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/961661467990086330/fossil-fuel-subsidies-approaches-and-valuation>

²⁴ See also Kojima (2015) *What exactly is a fossil fuel subsidy?*, <https://www.weforum.org/agenda/2015/04/what-exactly-is-a-fossil-fuel-subsidy/>

Grattan Institute

The Grattan Institute is a prominent Australian research organisation, with a well-regarded energy and climate research program. Grattan urges reform of the FTCS “to help repair the budget and reduce carbon emissions,” noting that the policy is “out of step with the government’s climate goals” which include “the phase-out of inefficient fossil-fuel subsidies.”²⁵

WHO DOES NOT CALL THE FTCS A SUBSIDY?

The Australian Government and its agencies do not consider the FTCS to be a subsidy. Representatives of the mining industry are also opposed to this description.

Productivity Commission

The Australian Government’s Productivity Commission has written:

One of the largest components of both the OECD’s and the Australia Institute’s estimates of assistance to the fossil fuel sector is fuel tax credits (FTCs). However, whether FTCs should be considered industry assistance is ultimately a question of the appropriate ‘baseline’ — what might be regarded as ‘normal’ policy settings — against which the design and effects of Australia’s fuel excise and FTC system should be assessed. The Commission does not regard the baseline used in the OECD’s and the Australia Institutes methodologies as a compelling approach to identifying industry assistance for the [Trade Assistance Review].²⁶

In our view, just because the FTCS has become ‘normalised’ does not make it any less of a subsidy under most definitions. Regardless, the Productivity Commission’s views are influential on publications from other Australian federal agencies, with one researcher from the Parliamentary Library concluding:

In summary, the rebate for excise paid on fuel that eligible businesses use as inputs is not a subsidy to fuel use. Rather, the rebate is designed to relieve businesses of input taxes that can reduce output and living standards. The

²⁵ Terrill et al (2023) *Fuelling budget repair: How to reform fuel taxes for business*, <https://grattan.edu.au/report/fuelling-budget-repair/>

²⁶ Productivity Commission (2021) *Trade and Assistance Review 2020-21*, <https://www.pc.gov.au/ongoing/trade-assistance/2020-21>

Productivity Commission does not consider the rebate to be a form of assistance.²⁷

It is worth reiterating here that to ‘relieve business of input taxes’, as put by this researcher, falls squarely within the WTO definition of a subsidy. Here again, the disagreement is around the use of the word subsidy, or ‘assistance’, compared to ‘tax relief’. What is not contested is the substantial cost of the FTCS, and the disincentive to decarbonise that flows from this policy.

Minerals Council of Australia

As the main lobby group for the mining industry, the Minerals Council is defensive of the FTCS:

The credit is not a subsidy, it does not lower the price of fuel paid by users.

There is no cost to taxpayers; it does not equate to spending by governments in other areas.

Just as the GST is rebated on business inputs, the credit removes what is an additional tax on a business input. Budget papers rightly note this for transparency.

Any change to the credit would be an increase in tax.

The repetition of the word subsidy is wrong and misleading.²⁸

The Minerals Council is incorrect to claim there is no cost to taxpayers. This cost is significant and quantified in the Federal Budget every year, as discussed above. The key point in contention is around the use of the word subsidy rather than the cost of the policy.

The Minerals Council statement quoted here makes no mention of road use. A separate Minerals Council site focuses exclusively on the debate around the FTCS and road use.²⁹ That site uses the term “diesel road tax” rather than fuel excise, which it claims “is intended for heavy road vehicles such as large trucks”. This ignores the fact

²⁷ Webb (2012) *Fuel tax credits: are they a subsidy to fuel use?*, https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/FlagPost/2012/May/Fuel_tax_credits_are_they_a_subsidy_to_fuel_use

²⁸ MCA (2023) *Fuel Tax Credit is not a subsidy*, www.minerals.org.au/resources/fuel-tax-credit-is-not-a-subsidy/

²⁹ Fuel Tax Credit Alliance (2022) *Road taxes are for road users*, www.roadtaxesareforroadusers.com.au/

that fuel excise applies to fuels other than diesel and that it is light vehicles that pay the full rate of excise, unlike heavy vehicles that receive partial fuel tax credits.

Further, the comparison to GST is spurious. The GST is explicitly designed as a tax on consumption, hence the exclusion of costs which go into production.

Though it is important to note that the entire minerals sector does not hold the view of the MCA – Dr Forrest, as cited above, has argued that the maintenance of the FTCS subsidy is actually slowing innovation in the mining sector.

CONCLUSION AND CONTEXT

The Fuel Tax Credits Scheme is one of Australia's most expensive government programs, expected to cost \$9.58 billion in 2023-24.³⁰ In comparison, the Australian Government has committed to spend significantly less on Official Development Assistance, which sits at \$4.77 billion for the 2023-24 year,³¹ which includes:

\$44 million allocated to Fiji,

\$50 million allocated to Vanuatu,

\$11.4 million allocated to Tuvalu,

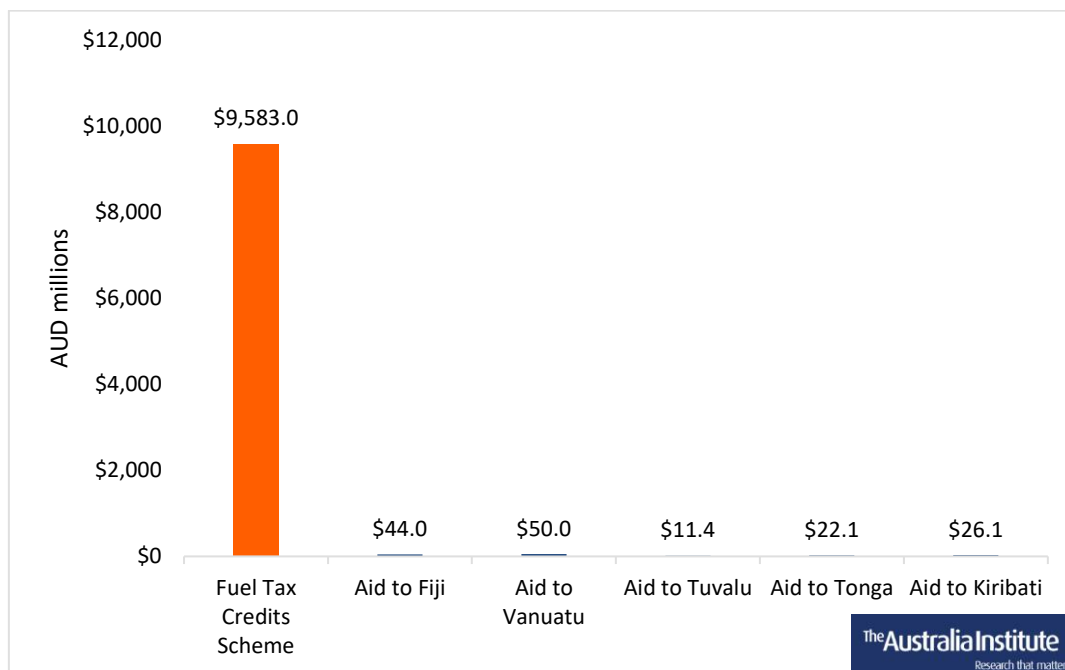
\$22.1 million allocated to Tonga, and

\$26.1 million allocated to Kiribati (Figure 4).

³⁰ Listed as the 18th largest expense in Australian Government (2023), *Budget Paper 1*.

³¹ Department of Foreign Affairs and Trade (2023) *Australia's Official Development Assistance Budget Summary 2023-24* <https://www.dfat.gov.au/about-us/corporate/portfolio-budget-statements/australias-official-development-assistance-budget-summary-2023-24>

Figure 4: FTCS compared to select Pacific aid expenditure, 2023-24



Source: Treasury (2023) *Budget Paper No. 1: Budget Strategy and Outlook*; Department of Foreign Affairs & Trade (2023) *Australia's Official Development Assistance Budget Summary 2023-24*

While the government notes that “rising global pressures including climate change” are amongst its primary concerns for the Pacific region, and that it “recognises the urgency and far-reaching implications of the climate crisis”, it is still allocating more funds towards subsidising fossil fuels through the Fuel Tax Credits Scheme than towards helping Pacific countries mitigate and adapt to climate change.³²

Domestic debate about Fuel Tax Credits Scheme remains dominated by the question of whether the scheme counts as a fossil fuel subsidy. However, at least internationally, the debate is settled: the Fuel Tax Credits Scheme is labelled a subsidy by the OECD, the International Energy Agency, the International Institute for Sustainable Development, the Overseas Development International and Oil Change International. Other organisations adopt a definition of subsidy which would include the FTCS.

The Fuel Tax Credits Scheme acts as a disincentive for major fossil fuel users to decarbonise. This portion of forgone government revenue could otherwise be spent on domestic or international efforts to decarbonise or mitigate the effects of climate change. From both a fiscal and environmental point of view it is a damaging policy in need of urgent reform.

³² Department of Foreign Affairs and Trade (2023) *Australia's Official Development Assistance Budget Summary 2023-24*

Cover sheet: Supporting document #2

Fossil fuel subsidies in Australia 2025

Federal and state government assistance to major producers and users of fossil fuels in 2024-25

In 2024–25, Australian governments provided \$14.9 billion worth of spending and tax breaks to assist fossil fuel producers and major users, a 3% increase on 2023–24. Subsidies in the forward estimates have increased from \$65 billion to a record \$67 billion, a sum 14.2 times larger than the nation’s \$4.75 billion disaster response fund.

Matt Grudnoff & Rod Campbell

March 2025

The Australia Institute - Research that matters

Established in 1994, The Australia Institute is an independent public policy think tank with offices in Canberra, Hobart, Melbourne and Adelaide providing intellectual and policy leadership across a broad range of economic, social and environmental topics. We conduct research that drives the public debate and secures policy outcomes that make Australia better – research that matters.

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Acknowledgement of Country

The Australia Institute recognises the ancestral connections and custodianship of Traditional Owners throughout Australia. We pay respect to Aboriginal and Torres Strait Islander cultures and to Elders past and present.

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Summary

A federal election is approaching and independent candidates are pushing to reform Australia's fossil fuel subsidies. In this context, we estimate Australia's subsidies to fossil fuel producers and major users from all governments totalled \$14.9 billion in 2024–25, an increase of 3% on the \$14.5 billion recorded in 2023–24.

This figure equates to \$28,381 for every minute of every day of the year, or \$548 for every person in Australia.

Beyond the 2024–25 budget year, total budgeted fossil fuel subsidies over the longer term have reached \$67 billion.

This longer-term total is about 14 times the balance of Australia's Disaster Ready Fund. At a time when Australia is being battered by increasingly damaging climate-induced natural disasters such as Cyclone Alfred, it is telling that the country spends far more subsidising fossil fuels than it does on preparing for the impact of those fuels' continued use.

The increase to \$14.9 billion in 2024–25 from \$14.5 billion in 2023–24 was driven largely by the Federal Government's Fuel Tax Credits Scheme (FTCS). The FTCS cost the Federal Budget \$10.2 billion in 2024–25, up from \$9.6 billion in 2023–24. The FTCS is one of the top twenty most expensive items in the Federal Budget: it was the 18th most expensive in 2023–24, and in 2024–25 it was the 16th most expensive. It is Australia's single largest fossil fuel subsidy, worth around \$1 billion to the coal industry alone, and more money is spent on it than on the Australian Army or Air Force.

Other Federal items also contributed significantly to the overall growth in fossil fuel subsidies. Concessions on aviation fuel grew by \$100 million to a total of \$1.7 billion. Concessions on the Petroleum Resource Rent Tax, which benefit major oil and gas producers, cost the Commonwealth an estimated \$165 million. In the Northern Territory, the Commonwealth Government is spending \$1.9 billion to assist the Middle Arm petrochemical hub in Darwin. In NSW, the Commonwealth-owned Australian Rail Track Corporation spent \$171 million on upgrading Hunter Valley coal railways to help "coal producers to ... capitalise on global demand and high prices for thermal coal".

At state level, Queensland provided the highest level of subsidies: \$1.8 billion in 2024–25 and longer-term commitments worth \$6 billion. The Queensland Government added significant new subsidies, including:

- \$75 million for the Barcaldine Power Station upgrade.
- \$1 million reviewing greenhouse gas storage in areas outside the Great Artesian Basin.

- \$70 million over four years managing the “significant public health and safety, and environmental risks at high-risk abandoned mine sites”.

Western Australia provided \$290 million in assistance to fossil fuel industries in 2024–25, a decrease of \$136 million from 2023–24. The decrease relates mainly to new data being available on recipients of funding from the Investment Attraction Fund, meaning wholly dedicated grants to fossil fuel projects could be estimated, rather than including the whole year’s expenditure as a partial subsidy. The change should not be interpreted as reflecting a change in WA Government policy; longer-term commitments have increased by \$312 million to \$1.4 billion.

The NT Government provided \$202 million in assistance to the oil and gas industry in 2024–25, with longer-term commitments worth \$3.6 billion. However, this figure does not include the gas that the NT Government announced in 2024 that it would purchase from a controversial Beetaloo Basin gas project. This purchase would probably have been impossible without the hundreds of millions of dollars in gas industry-focused road construction funded by the Commonwealth. The NT’s largest assistance measure is its Power and Water Corporation’s decades-long, loss-making agreement to buy and transport gas from Eni, a multinational oil company. These commitments are currently worth \$2.6 billion for gas purchases and \$622 million in pipeline commitments. The government has also committed to spend \$108 million in 2024-25 on the common user ship lift.

Victoria provided \$64 million in assistance to fossil fuel industries in 2024–25, with longer-term commitments worth \$216 million. A large part of Victoria’s spending is on the Hydrogen Energy Chain Pilot project; 2024–25 will be the project’s final year as it appears to have been abandoned by its major backer, Kawasaki Heavy Industries. There is also a land tax concession that is applied to mines, particularly coal mines, in the Latrobe Valley.

South Australia provided \$37 million in assistance to fossil fuel industries in 2024–25, with longer-term commitments worth \$98 million. The most significant spending relates to Port Bonython, a facility used by Santos that is in the vicinity of proposed hydrogen production and export projects.

New South Wales provided \$10 million in assistance to fossil fuel industries in 2024–25, with longer-term commitments worth \$492 million. The government has provided financial guarantees to Origin Energy to keep the Eraring coal-fired power station operating over the next two years. This could see the NSW government paying Origin Energy up to \$450 million.

No fossil fuel subsidies were identified in the budgets of the Tasmanian or ACT governments.

Australia is not taking serious action on climate change. Instead, the majority of its governments continue to subsidise fossil fuels and greenwash their poor climate policies.

Cutting fossil fuel subsidies would not only help achieve genuine reductions in emissions, but would save money that could be spent on public services.

However, the coming months bring new opportunities to change course. A federal election is likely to be held in May, with members of the current crossbench highlighting fossil fuel subsidy reform as something they will pursue if elected to the next parliament. The costs of Australia's fossil fuel subsidies, both financial and environmental, and the opportunities that phasing out those subsidies could present, should be front and centre of Australia's election debate.

Introduction

Despite repeated promises of climate action, Australia's fossil fuel subsidies have grown steadily over the four years that this report has been compiled in this format. Worse still, they are projected to keep growing, pushed along by the Federal Government's Fuel Tax Credit Scheme.

Nevertheless, there are some reasons for optimism. A federal election is due in May and key members of parliament have stated their intention to push for reduced fossil fuel subsidies if they are re-elected to a hung parliament.¹ Fossil fuel subsidies from most state governments are declining, or at least not growing. Some particularly egregious projects, such as Victoria's brown coal-sourced Hydrogen Energy Supply Chain Project, appear to have collapsed. Meanwhile, the South Australian and Federal Governments appear to be pursuing genuinely clean steel in Whyalla.²

Change may be on the way.

If so, it has been a long time coming. Studies of fossil fuel subsidies in Australia date back to 1994, when a report by the National Institute of Economic and Industry Research (NIEIR) estimated the value of subsidies to the Australian energy sector to be \$1.995 billion.³ The University of Technology Sydney's Institute for Sustainable Futures made several estimates around the turn of the century, estimating a range of between \$9.3 billion and \$10.1 billion in a 2007 Greenpeace-commissioned study.⁴ More recent estimates include:

- The International Monetary Fund (IMF), which put the figure at USD \$44 billion in 2020, including unpaid costs of air pollution and climate change.⁵

¹ Rabe (2024) Crossbench MPs eye tax credit overhaul on major miners, <https://www.afr.com/politics/federal/crossbench-mps-eye-tax-credit-overhaul-on-major-miners-20241023-p5kkqv>

² Vorrath (2025) Albanese pledges \$2.4 billion to rescue Whyalla and Australia's green steel ambitions, <https://reneweconomy.com.au/albanese-pledges-2-billion-to-rescue-whyalla-and-australias-green-steel-ambitions/>

³ NIEIR (1996) *Subsidies to the use of natural resources*, <https://catalogue.nla.gov.au/Record/319092/Details>

⁴ Riedy (2007) *Energy and transport subsidies in Australia: 2007 update*, <https://apo.org.au/node/4203>

⁵ Parry et al (2019) *Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies*, <https://www.imf.org/en/Publications/WP/Issues/2021/09/23/Still-Not-Getting-Energy-Prices-Right-A-Global-and-Country-Update-of-Fossil-Fuel-Subsidies-466004#:~:text=IMF%20Working%20Papers&text=Globally%2C%20fossil%20fuel%20subsidies%20were,percent%20of%20GDP%20in%202025.>

- The Organisation for Economic Co-operation and Development (OECD), which put the figure at \$12.4 billion in 2021.⁶
- The Productivity Commission, which estimated that \$1 billion was given to sectors that include fossil fuel activities in 2018–19.⁷

This range estimates demonstrates a key issue in any discussion about subsidies: different definitions of “subsidy” make a large difference to the final estimate. The largest estimates, such as those from the IMF, incorporate the uncompensated costs of climate, health and other environmental damage into their definition of fossil fuel subsidies. The lower estimates, like those from the Productivity Commission, take into account a much narrower range of assistance measures to fossil fuel producers, typically direct payments and the estimated value of trade barriers.

In some cases, identifying which budget items constitute a fossil fuel subsidy is straightforward—in particular, where their title suggests the that intended beneficiaries are fossil fuel industries (for example, Coal Innovation NSW). Other relevant items require further investigation, as their connection to fossil fuel-related activities may not be immediately apparent. This is particularly the case for infrastructure projects on which fossil fuel industries rely, such as rail and port projects. For example, funding for the Darwin Ship Lift is not, at face value, a fossil fuel subsidy. However, a close reading of the relevant budget paper clarifies that this money will assist oil and gas vessels.

The provision of infrastructure represents a major source of subsidies for fossil fuel industries. Australian governments spend significant amounts of money on ports, railways, pipelines, power stations and other forms of infrastructure that assist in the production, transport and consumption of fossil fuels. While companies often pay to use this infrastructure, and the infrastructure’s management may return surplus money to the government that owns the asset, it is government-owned entities that take on the risk and cover the infrastructure’s up-front costs. State treasuries are explicit as to how this provides benefits to the industry, and imposes costs on the community:

“Some costs may be recovered by the government over time if they are directly industry related. However, there is a real opportunity cost for governments in undertaking the initial capital expenditure. Governments face budget constraints, and spending on mining related infrastructure means less infrastructure spending in other areas, including social infrastructure such as hospitals and schools. The

⁶ OECD (2022) *OECD Inventory of support for fossil fuels - Australia*, https://stats.oecd.org/Index.aspx?DataSetCode=FFS_FRA; OECD (2019) *Fossil Fuel Support Country note: Australia*, <http://www.oecd.org/fossil-fuels/data/>; and OECD (2018) *OECD Companion to the Inventory of Support measures for fossil fuels 2018*, https://read.oecd-ilibrary.org/energy/oecd-companion-to-the-inventory-of-support-measures-for-fossil-fuels-2018_9789264286061-en#page4

⁷ Productivity Commission (2020) *Trade and assistance review 2018-19*, <https://www.pc.gov.au/research/ongoing/trade-assistance/2018-19>

opportunity cost of this use of limited funds is a real cost to government and the community.” – Queensland Treasury⁸

“Western Australian Treasury calculated that in 2010 net present value terms, the estimated cost of its commitments to assist the North West Shelf project (e.g. payment of subsidies to the State’s power utility to help cover the losses it initially incurred under crucial ‘take or pay’ gas contracts) is estimated to be around \$8 billion.” – Western Australian Treasury⁹

Our approach to calculating subsidies reflects the same logic as the Queensland Treasury: a government’s choice to allocate scarce resources to fossil fuel industries, rather than to other government priorities, represents a subsidy to fossil fuels. The fact that user fees may later be collected does not change the fact that a government has directed resources to one project at the expense of another.

⁸ Queensland Treasury (2014) *Queensland Treasury Response to Commonwealth Grants Commission 2015 Methodology Review*,

https://www.cgc.gov.au/sites/default/files/documents/2015%20Review%20Report/General%20Consultation/Commission%20position%20and%20staff%20discussion%20papers/State%20responses/R2015%20-%20CGC%202013-05%20-%20CGC%202013-06-S%20-%20CGC%202013-07-S%20-%20CGC%202013-08-S%20-%20QLD%20Response.pdf?acsf_files_redirect

⁹ WA Treasury (2017) *Western Australia’s Submission to the Productivity Commission’s Inquiry into Horizontal Fiscal Equalisation*, https://www.pc.gov.au/__data/assets/pdf_file/0008/218564/sub015-horizontal-fiscal-equalisation.pdf

Methodology

Our estimates of the subsidies and other forms of assistance given to the fossil fuels industry for the 2024–25 budget year are based on items included in state and federal budget papers, as well as the annual reports of relevant departments and agencies. In the small number of cases where 2024–25 data was unavailable for an ongoing subsidy, estimates were based on data taken from the relevant 2023–24 documents. Where appropriate, subsidy or assistance estimates were projected over the forward estimates by compiling multi-year funding packages for non-ongoing projects and the capital value of long-term physical assets. The analysis does not include funding for fossil fuel projects or programs announced after the publication of 2024–25 Federal, State and Territory Budget Papers.

The value of industry assistance from ongoing programs—such as long-running tax breaks and established government departments—is taken as the sum of values estimated over the forward estimates. This includes the current budget year and three years of forward estimates, also known as outyears. Omitting the longer-term value of such subsidies would result in the counterintuitive situation where the current 2024–25 budget item could be greater than its total/capital value. This method still produces a conservative estimate, as such programs may run for much longer than the next four years, and therefore cost much more. This is most relevant to the Fuel Tax Credits Scheme, which dominates overall results, as the 2024–25 Federal budget indicates that spending on the Scheme will continue to increase in the future.

Our estimates include tax concessions that advantage major fossil fuel producers, and that are calculated in budget documents. This approach means the Federal Fuel Tax Credits Scheme is included (it applies only to certain fossil fuel users, and is calculated in budget documents), but not the benefit to similar parties provided by the abolition of carbon pricing (no group pays an explicit carbon price, and the lost revenue is not calculated in budget documents).

Each item of expenditure has been classified according to which fossil fuel industry it benefitted: coal, gas/oil or various. Items categorised as “various” provided support to several segments or referred to a larger industry investment. For example, many of Queensland’s ports import and export a combination of coal, oil, gas and other products, and have thus been categorised as “various”.

Subsidies were assessed as being wholly, primarily, or partly dedicated to these industries according to the following definitions:

- Wholly dedicated: the subsidy was provided for the singular purpose of supporting the consumption, extraction, processing, or transport of fossil fuel commodities. An

example of this is the Queensland government's \$50 million in funding for the Meandu coal mine, which supplies a state-owned power station.

- Primarily dedicated: the fossil fuel industry received tangible economic benefits from the spending, but was not the exclusive beneficiary. An example is the Queensland government's spending on Gladstone Port (referred to as Gladstone State Development Area), a large liquefied natural gas (LNG) and coal port that also handles some other commodities.
- Partly dedicated: the fossil fuel industry received a tangible economic benefit from the spending, but that benefit was not the primary aim of the project, or it was not clear which stakeholders received the primary benefit. Infrastructure projects often fall into this category, as fossil fuel producers may be major—but not primary—users of the infrastructure in question. For example, the Darwin Ship Lift—which is funded by the NT government and the Federal Northern Australia Infrastructure Facility—will partly benefit ships that service the offshore oil and gas industry, but is also aimed at defence and other marine services.

Cases where spending benefits the fossil fuel industry either incidentally, or at levels too low to be differentiated in official documents, were not included. For example, Victoria's mining exploration program could benefit coal or gas companies but appears to be aimed mainly at other minerals.

Some spending by government departments has been included where:

- The role of the department includes the provision of services (particularly geoscience information) or activities that incentivise and promote investment in and production of fossil fuels. Often these bodies also play a more basic regulatory role or promote not just fossil fuels but also the wider mining industry. In such cases, the spending is considered as only partly dedicated to fossil fuel assistance.
- We have identified a significant under-recovery of regulatory expenses. These include cases in which agencies incur significant costs for providing services to the fossil fuels industry. One clear example is the NT's onshore gas regulator: an independent inquiry in 2018 highlighted the regulatory body's costs and minimal revenue, but the situation has not been addressed despite the body receiving an increased budget allocation. Similarly, Queensland Treasury highlights that "mining regulation expenses are now material".¹⁰ Where regulators make minimal effort to recover such expenses and the under-recovery can be quantified, this has been included as a subsidy.

Generally speaking, we have considered funding for carbon capture and storage (CCS, sometimes including "use/utilisation and storage" and abbreviated as CCUS) as being

¹⁰ Queensland Treasury (2020) *Queensland response to the Draft Report on the 2020 Methodology Review*, https://www.cgc.gov.au/sites/default/files/qld_submission_-_2020_review_draft_report.pdf

dedicated wholly to fossil fuel industries. While some climate research suggests CCS will be necessary to reduce emissions from sectors that are difficult to decarbonise, the intended purpose of most CCS projects funded by state and federal governments is to enable the continued operation of fossil fuel industries in Australia.

While hydrogen can be derived through a number of different methods—including the use of renewable energy, or by processing fossil gas and through gasification of coal—we have included funding for hydrogen as a partly dedicated fossil fuel subsidy unless it is specified that funding only applies to renewable-derived hydrogen with no clear link to fossil fuel facilities.

Our estimates do not include the cost of environmental pollution or damage caused by the extraction and use of fossil fuels. This omission is not because these costs are unimportant, but because they are difficult to calculate, and are often contested. Furthermore, these wider costs are borne by the community and the natural environment, not just by governments directly. By concentrating on the official figures published in budget papers and similar documents, we have derived an estimate of how government subsidises the major producers and consumers of fossil fuels. This allows us to show how much revenue could be raised or saved if these decisions were reversed.

Overview of results

This section provides an overview of the combined total of subsidies given by Australian governments to fossil fuel producers and major users and discusses differences between jurisdictions. More specific details on the assistance provided by each individual government to the fossil fuel sector can be found in subsequent sections.

2024-25 FOSSIL FUEL SUBSIDIES

Every year Australian governments provide subsidies worth billions of dollars to fossil fuel producers and major users. As Table 1 shows, these subsidies cost federal, state, and territory governments a total of \$14.9 billion in 2024–25:

Table 1: 2024–25 fossil fuel subsidies by federal, state and territory governments

	Spending measures (\$)	Tax concessions (\$)	Total assistance (\$)
Federal	195,008,000	12,284,000,000	12,479,008,000
QLD	834,233,000	1,000,00,000	1,834,233,000
WA	290,346,000	N/A	290,346,000
NT	201,850,000	N/A	201,850,000
VIC	64,650,000	N/A	64,650,000
SA	36,760,000	N/A	36,760,000
NSW	10,297,000	N/A	10,297,000
Total	1,633,144,000	13,284,000,000	14,917,144,000

Sources: Budget papers and annual reports of government entities

The Australia Institute
Research that matters.

Another way of looking at the results in Table 1 is that every minute of every day in 2024–25, fossil fuel subsidies cost the public \$28,381. Over the year, this represents \$548 for every person in Australia.¹¹

Table 1 shows that Federal Government tax concessions account for the largest part of overall fossil fuel subsidies, particularly via the Fuel Tax Credits Scheme, which refunds fuel tax to specific users. This subsidy represents one of the largest expenses in the Federal Government’s budget, costing almost \$10.2 billion in 2024–25, more than the expense of the Army or the Air Force. The Fuel Tax Credits Scheme jumped up two places on the federal

¹¹ ABS (2024) *National, state and territory population*,
<https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/jun-2024>

budget's top 20 programs by expenses, from 18th in 2023–24 to 16th in 2024–25. The cost of the Fuel Tax Credits Scheme is likely to rise through the forward estimates.

The totals in Table 1 are an increase on 2023–24, which saw a total of \$14.5 billion in budgeted assistance for fossil fuels. The increase was driven primarily by the Fuel Tax Credits Scheme, as well as Federal concessions on aviation fuel. Queensland saw a ramping up of spending on the Brigalow gas peaking plant and a larger rail concession. For further information on each of these, see the Federal and Queensland sections below.

CAPITAL VALUES AND FORWARD ESTIMATES

The results above refer only to fossil fuel subsidies incurred or provided by governments in 2024–25. However, most of the projects and programs to which these subsidies apply operate over the course of many years. Table 2 below combines the total value of specific projects with the forward estimate's values of ongoing programs (see the methodology section for more explanation).

Table 1: Capital values and forward estimates

	2024–25 (\$)	2023–24 (\$)	2022–23 (\$)
Federal	55,529,584,737	54,323,286,500	49,685,341,000
QLD	5,975,891,000	5,516,591,000	1,757,165,000
WA	1,376,510,255	1,033,650,000	1,425,265,000
NT	3,649,343,000	3,723,595,000	3,593,147,000
VIC	216,100,000	84,000,000	281,600,000
SA	97,956,000	186,740,000	159,764,000
NSW	492,385,000	102,717,667	178,370,000
Total	67,337,769,992	64,970,580,167	57,080,652,000

Source: Budget papers, annual reports and tax expenditure documents



Table 2 shows that Australian governments have budgeted \$67.3 billion over the lifetime of fossil fuel projects and programs listed in 2024–25 budget papers. This represents a \$2.4 billion increase from the 2023–24 figure of \$65 billion.

In contrast with fossil fuel subsidies, the balance of Australia's Disaster Ready Fund was \$4.75 billion in September 2024.¹² In other words, total planned fossil fuel subsidies are 14.2 times larger than the nation's disaster response fund.

Table 2 shows that most of this total budgeted assistance comes from the Federal Government, due to the increasing cost of the Fuel Tax Credits Scheme. Queensland has the

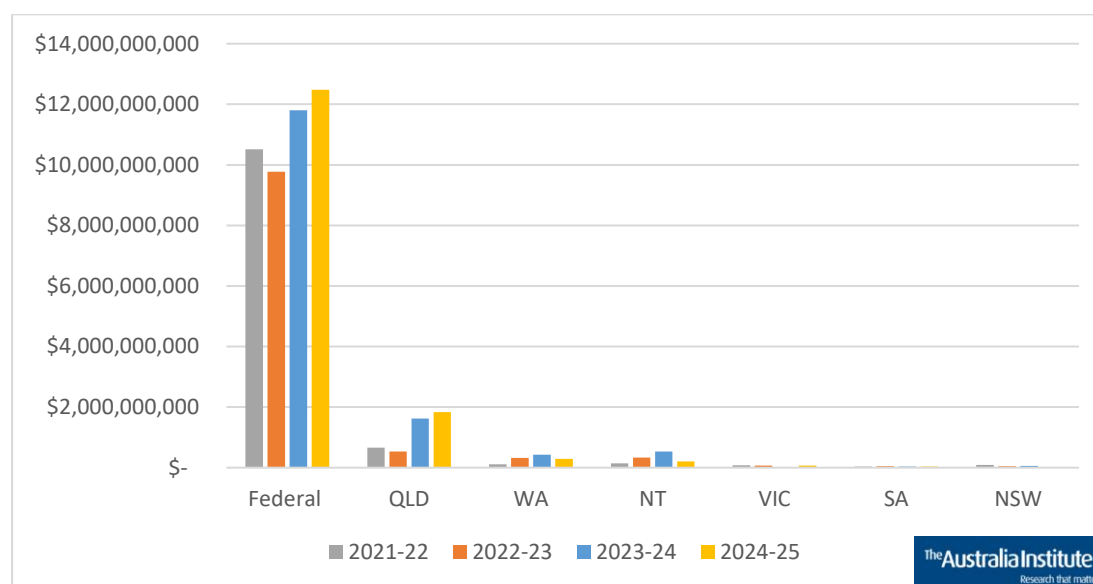
¹² Australian Government (2024) *Disaster Ready Fund*, <https://www.finance.gov.au/emergency-response-fund>

second highest figure, driven by rail concessions and capital spending on its state-owned coal fired power stations and coal ports. The Northern Territory is third due to multi-billion-dollar gas commitments made by its government-owned Power and Water Corporation.

COMPARISON TO PREVIOUS YEARS

The 2024–25 total of \$14.9 billion represents a 3% increase from 2023–24's total of \$14.5 billion. The subsidies provided each year are broken down by jurisdiction in Figure 1 below:

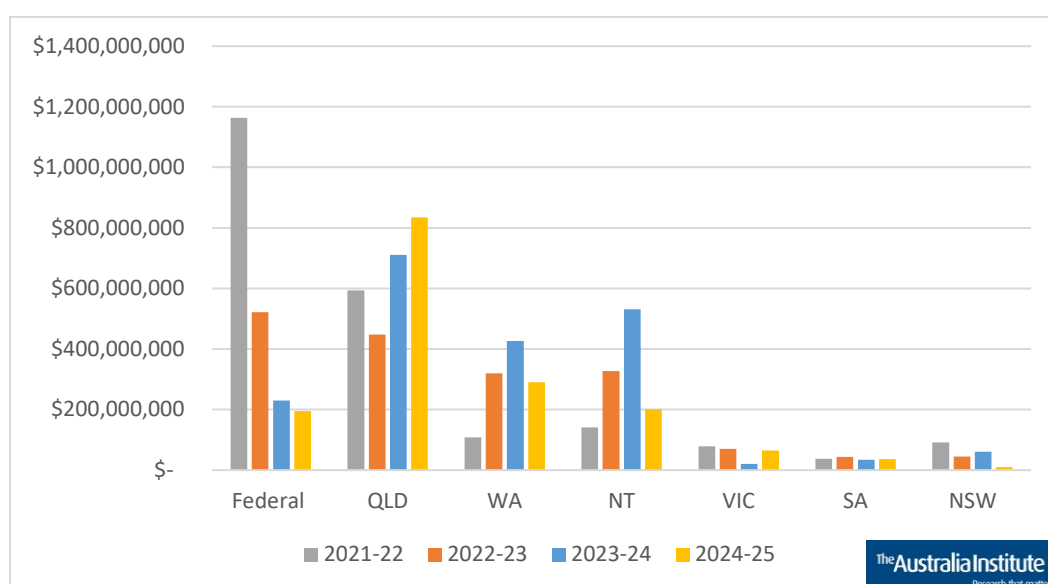
Figure 1: Fossil fuel subsidies 2021–22 to 2024–25 by jurisdiction



Sources: Budget papers and annual reports of government entities

Figure 1 shows the dominance of the Federal Government in fossil fuel assistance. As discussed above, this dominance is driven by the Fuel Tax Credits Scheme. As overall figures are heavily influenced by the Fuel Tax Credits Scheme, in Figure 2 we have removed all tax concessions from total figures, leaving only spending measures. This allows a comparison to be made between years and jurisdictions.

Figure 2: Total assistance by jurisdiction, 2021–22 to 2024–25 (excluding tax concessions)



Sources: Budget papers and annual reports of government entities

Figure 2 shows that beyond tax concessions, Federal Government subsidies declined from almost \$1.2 billion during the Morrison Government’s “gas-fired recovery” to \$522 million in 2022–23, \$230 million in 2023–24 and \$195 million this year. Much of this change reflects the removal of items such as the Darwin Middle Arm development, the gas-fired Hunter Power Station and the Olive Downs coal mine loan from the Federal Government’s budget. However, these subsidies to long-lived assets remain on the balance sheet of the relevant government entities.

Figure 2 shows that in 2024–25, the Queensland government provided more assistance to fossil fuels than any other government in Australia. Of the \$834 million it budgeted, \$802 million was spent on government-owned coal and gas power stations, coal mines and ports that export and import fossil fuels.

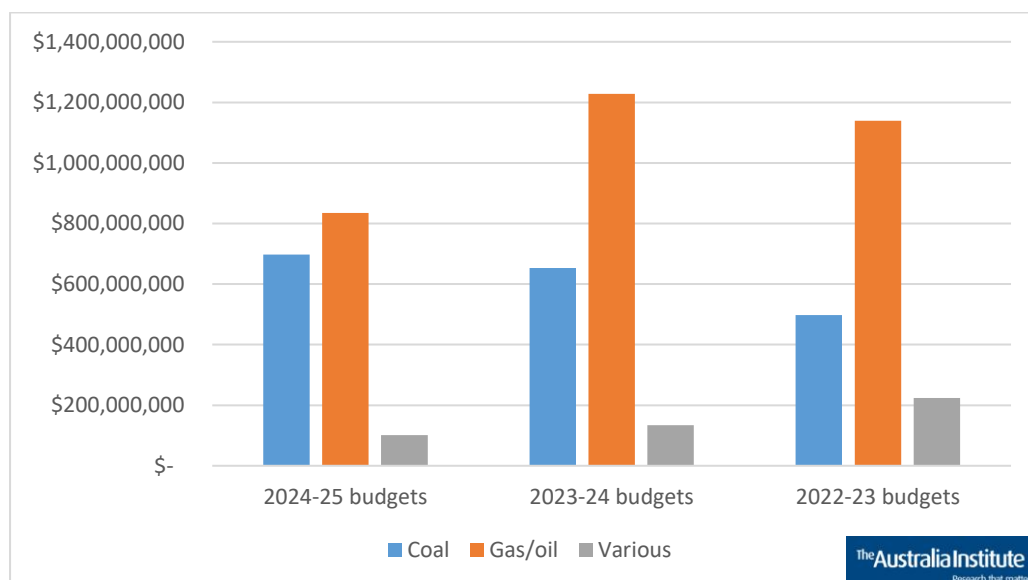
The fall in the Northern Territory’s subsidies largely reflects the apparent completion of road upgrades made specifically for the onshore gas industry. These roads were built to allow access to gas extraction, processing, and export facilities. There was no mention of gas roads in the latest budget papers; it is unclear whether this is because the roads have been renamed, or whether their construction has now been completed. The Middle Arm petrochemical development continues to be a significant subsidy in the Northern Territory.

As was the case in previous years, neither Tasmania nor the ACT had identifiable fossil fuel subsidies. While Tasmania has a mining exploration subsidy that has made grants to coal projects in the past, no fossil fuel subsidy was clear in its 2024–25 budget.

2024-25 SPENDING BY INDUSTRY

This report categorises fossil fuel subsidies according to industry segment: coal, gas/oil or various. As shown in Figure 3, when tax concessions are excluded, gas and oil companies were the main beneficiaries of fossil fuel subsidies.

Figure 3: Budget 2024–25 spending by industry segment, not including concessions



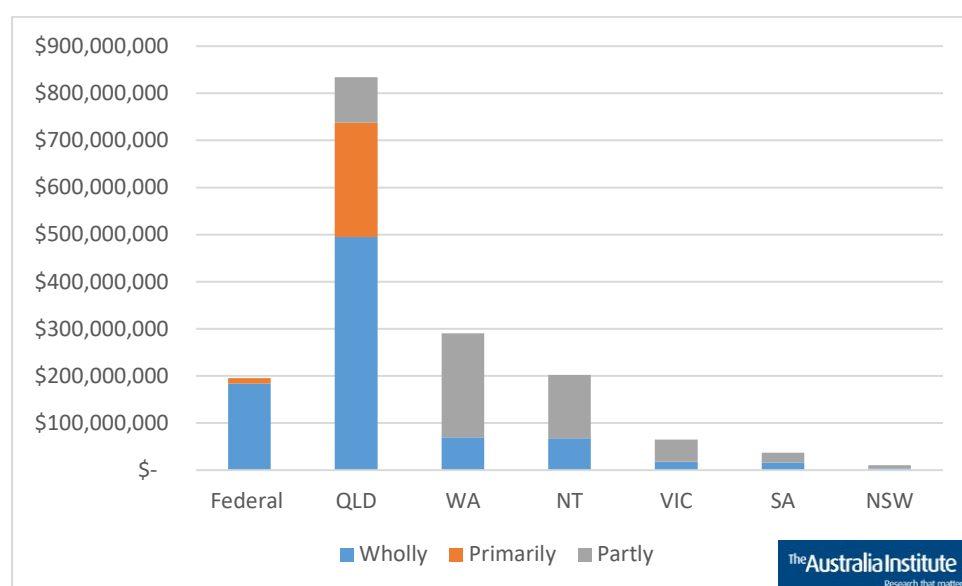
Source: Budget papers and annual reports

Figure 3 shows that since 2022–23, the coal industry has seen a steady growth in subsidies. Oil and gas has seen a small decline but continues to dominate fossil fuel subsidies.

2024-25 SPENDING BY DEDICATION

This report classifies budget spending as wholly, primarily or partly dedicated to fossil fuels. Figure 4 shows total Federal, State and Territory spending in 2024–25 by dedication, not including concessions.

Figure 4: Budget 2024–25 spending by dedication, not including concessions



Source: Budget papers and annual reports

Figure 4 shows that non-concessional subsidies are largely driven by Queensland’s spending on its coal-fired power stations and coal ports, most of which are considered wholly dedicated to fossil fuel industries. Subsidies dedicated partly to fossil fuels were important in the NT’s recent spending on port infrastructure as well as WA investment and industry promotion funds.

Federal Government

In 2024–25, the Federal Government provided \$12.5 billion worth of subsidies to fossil fuel producers and major consumers. The largest component of this assistance was tax concessions for major fossil fuel users through the Fuel Tax Credits Scheme. This subsidy was valued at \$10.2 billion. Other tax breaks on fuel excise and the Petroleum Resources Rent Tax (PRRT) account for a further \$2.1 billion.

The Federal Government also provided a total of \$195 million of non tax-based subsidies in 2024–25. Table 3 below sets out the costs of both tax-based and non tax-based subsidies, along with the total assistance provided in 2024–25. The equivalent figures for 2023–24 are also provided for comparison.

Table 2: Federal Government fossil fuel subsidies 2023–24 and 2024–25

Dedication to fossil fuels	2024–25 Budget spending (\$)	2024–25 tax concessions (\$)	Total 2024–25 assistance (\$)	Total 2023–24 assistance (\$)
Wholly	183,814,000	12,229,000,00	12,412,814,000	11,641,075,000
Primarily	11,194,000	55,000,000	166,194,000	161,879,000
Partly	-	-	-	-
Total	195,008,000	12,284,000,000	12,479,008,000	11,802,954,000

Source: Federal Government Budget Papers 2023–24 and 2024–25; annual reports of Federal Government controlled entities; *Tax Expenditure and Insights Statement 2024*



Table 3 shows that Federal Government assistance to the fossil fuel sector in 2024–25 is \$676 million more than it was in 2023–24, driven by the increase in the cost of the Fuel Tax Credits Scheme.

Over the longer term, the total estimated value of fossil fuel subsidies for 2024–25 Federal projects and programs—including capital value and budget paper forward estimates—is \$55.5 billion. This is an increase of \$1.2 billion from last year’s total of \$54.3 billion, as shown in Table 4 below:

Table 3: Federal Government fossil fuel subsidies—total project/program funding

Dedication to fossil fuels	Total value 2024–25 (\$)	Total value 2023–24 (\$)
Wholly	54,948,008,000	51,460,400,000
Primarily	281,576,000	2,562,886,000
Partly	300,000,000	300,000,000
Total	55,529,584,000	54,323,286,000

Source: Federal Government Budget Papers 2023–24 and 2024–25; annual reports of Federal Government controlled entities; *Tax Expenditure and Insights Statement 2024*



As discussed below, these totals include the Albanese government’s subsidy for gas export infrastructure at Middle Arm in Darwin, as well as projects such as Snowy Hydro’s gas-fired Hunter Power station. Other government bodies such as the Northern Australia Infrastructure Fund and the Australian Rail Track Corporation continue to fund and invest in fossil fuel expansion.

TAX CONCESSIONS

Fuel Tax Credits Scheme

The biggest Federal Government fossil fuel subsidy is the Fuel Tax Credits Scheme. The scheme allows businesses to claim a tax credit on fuel used in machinery, vehicles over 4.5 tonnes, and vehicles not used on public roads.¹³ This tax break works to make fossil fuel use cheaper for energy-intensive businesses such as coal mines. It is not available to other businesses and individuals that use machinery and vehicles that run on different fuels. Fuel tax is not linked to road funding,¹⁴ as is commonly suggested by recipients of this subsidy; it simply contributes to general revenue, like most other federal taxation. More information about the Fuel Tax Credits Scheme can be found in *Australia’s Fuel Tax Credits and the debate of fossil fuel subsidies*.¹⁵

The cost of the Scheme has increased steadily over the years—more than doubling from under \$5 billion in 2008–09 to \$10.2 billion in 2024–25. Rapid growth is expected in the

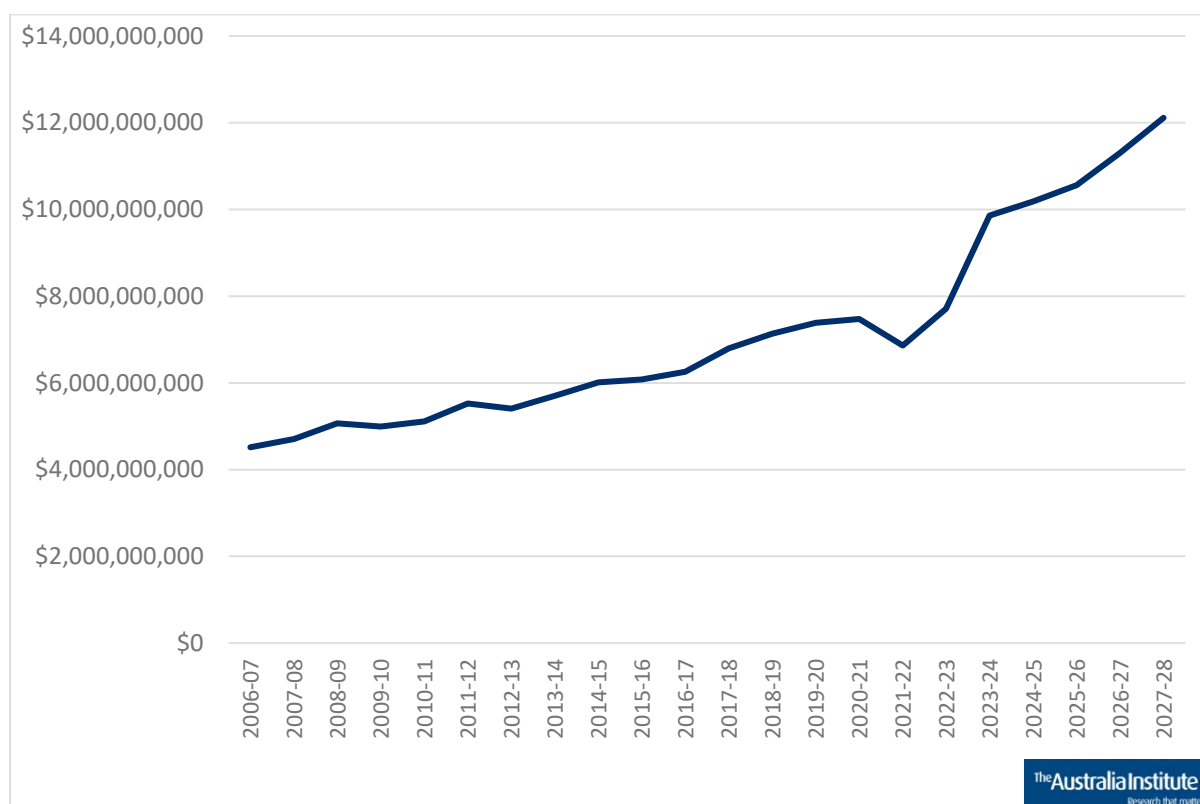
¹³ ATO (2021) *Fuel tax credits – business*, <https://www.ato.gov.au/Business/Fuel-schemes/Fuel-tax-credits---business/>

¹⁴ The only exception is revenue related to the 2014 re-indexation of fuel excise, which is directed to the *Fuel Indexation (Road Funding) Special Account*. In 2023 this represented around 5% of fuel tax revenues. See Australian Government (2023) *Special accounts balances and cash flows report*, <https://www.finance.gov.au/special-appropriations-special-accounts>

¹⁵ Campbell et al. (2024) *Australia’s Fuel Tax Credits and the debate of fossil fuel subsidies*, <https://australiainstitute.org.au/report/australias-fuel-tax-credits-and-the-debate-over-fossil-fuel-subsidies/>

coming years—as shown in Figure 5 below, the cost of the Scheme is forecast to reach \$12.1 billion in 2027–28:

Figure 5: Total cost of the Fuel Tax Credits Scheme per year



Source: Australia Taxation Office (2024) *Taxation statistics 2022-23, Excise and fuel schemes*, Table 4; Australia Government (2024) *Budget Paper 1*.

The impact of the COVID-19 pandemic on diesel consumption was only modest; the Morrison government’s decision to cut fuel excise by 50% in response to Russia’s invasion of Ukraine and the resulting energy price spikes had a far larger effect on the cost of the Scheme. Had this change not been made, the Scheme’s cost was expected to reach \$8.07 billion in 2021–22.¹⁶ Following the 2022 election, the Albanese Government kept fuel excise low, returning it to previous levels only in late 2022/early 2023.¹⁷

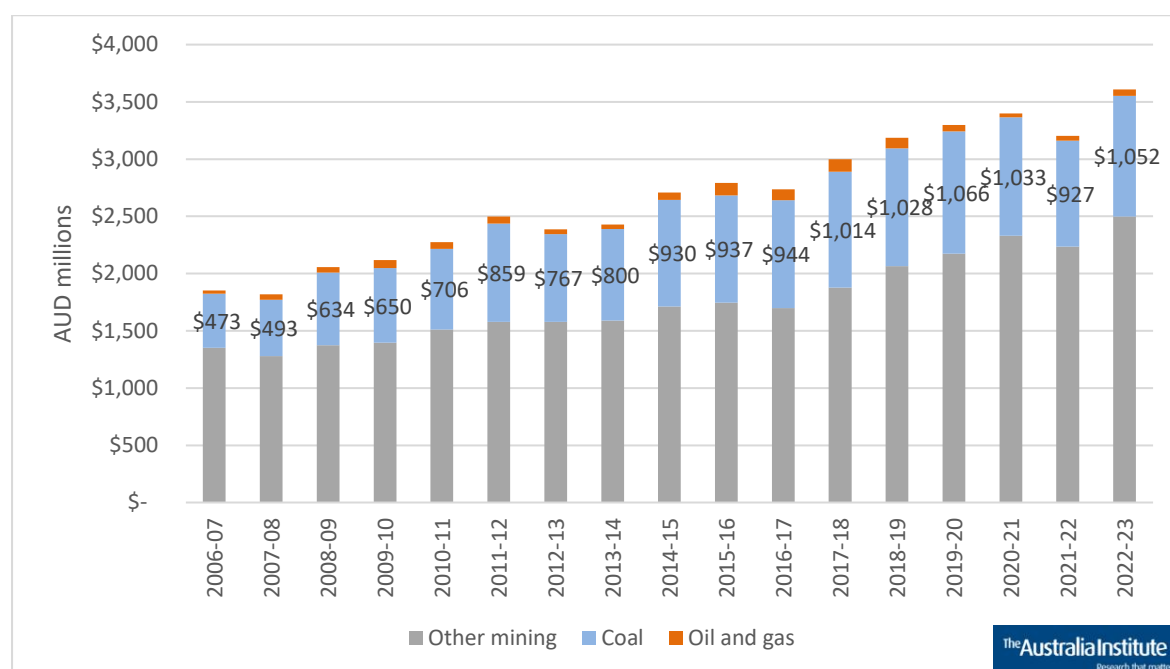
It was the return of fuel excise rates to pre-2021 levels that caused the decline in the cost of the Fuel Tax Credits Scheme visible in Figure 5, not a decline in fossil fuel use or a reduction in fossil fuel subsidies. With the return to the full rate of fuel excise and no policy to reduce Australia’s diesel use, the cost of the Fuel Tax Credits Scheme is budgeted to increase by 23% from 2023–24 to 2027–28.

¹⁶ Australian Government (2023) *Budget strategy and outlook: Budget Paper 1*

¹⁷ ATO (2023) *Fuel tax credit rates*, <https://www.ato.gov.au/Business/Fuel-schemes/Fuel-tax-credits---business/Rates---business/From-1-July-2022-to-30-June-2023/>

The Fuel Tax Credits Scheme does not only subsidise the consumption of fossil fuels; fossil fuel producers themselves are key beneficiaries. The total benefit provided by the Scheme to the coal industry between 2006–07 and 2022–23 is \$14.3 billion, as shown in Figure 6 below.

Figure 6: Fuel tax credits and the mining industry



Source: Australia Taxation Office (2024) *Taxation statistics*, Excise and fuel schemes, Table 4

Using the latest taxation data, Figure 6 shows that as of 2022–23, the Fuel Tax Credits Scheme was worth over \$3.5 billion per year to the mining industry, with over \$1 billion going to the coal industry alone. Not surprisingly, the mining industry leads a campaign to maintain this lucrative subsidy.¹⁸

Other tax concessions

Fossil fuel producers and users receive exemptions from various taxes and excises. Such exemptions serve to reduce government revenue, and also to reduce incentives to minimise fossil fuel use and/or production. The cost of these concessions is estimated in the Tax Expenditures and Insights Statement prepared by the Federal Treasury.¹⁹ For some items, Treasury estimates a range rather than a point estimate. In these cases, our estimates take the midpoint of the Treasury's range.

¹⁸ Fuel Tax Credit Alliance (2020) *Fuel tax credits*, <http://fueltaxfacts.com.au/>

¹⁹ Australian Government (2024) *2024-25 Tax Expenditures and Insights Statement*, <https://treasury.gov.au/publication/p2025-607085>

Table 5: Tax-based fossil fuel subsidies 2024–25, excluding the Fuel Tax Credits Scheme

Tax concession	Dedication	Industry segment	Estimated cost (\$)
Transport for oil rig and remote area employees exemption	Primarily	Gas/Oil	55,000,000
Concessional rate of excise levied on aviation gasoline and aviation turbine fuel	Wholly	Consumption	1,700,000,000
Excise concessions for “alternative fuels” (including LPG and LNG)	Wholly	Consumption	180,000,000
PRRT—expenditure uplift rate	Wholly	Gas/Oil	55,000,000
PRRT—gas transfer price regulations	Wholly	Gas/Oil	55,000,000
PRRT—starting base and uplift rate for capital assets	Wholly	Gas/Oil	55,000,000
Total			2,100,000,000

Source: Tax Expenditures and Insights Statement, December 2024



The largest concession in Table 5 relates to aviation gasoline and turbine fuel. Civil aviation companies pay a lower rate of excise than other fuel users. Other discounts apply to “alternative fuels”, a category that includes liquified petroleum gas (LPG) and liquefied natural gas (LNG). As with the Fuel Tax Credits Scheme discussed above, these discounts involve lowering the price of fossil fuels for selected users, and in doing so, they reduce government revenue, transfer costs onto other parties, and reduce incentives to minimise fossil fuel use and related pollution.

The concession for aviation fuels has increased from \$1.59 billion in 2023–24 to \$1.7 billion in 2024–25. The forward estimates expect the concession to be worth more than \$2 billion by 2027–28. The size of the concession is likely to grow with aviation fuel demand and prices, with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) expecting a 75% increase in jet fuel demand by 2050.²⁰

The Petroleum Resource Rent Tax (PRRT) is levied on super profits generated from the sale of oil and gas. However, a range of concessions reduce the amount of PRRT paid by the industry, including credits for any tax losses, the use of a pricing method that undervalues gas, and deductions based on the value of project assets that can be carried forward and uplifted.

²⁰ CSIRO (2023) *Fuelling Australia's future sustainable aviation industry*, <https://www.csiro.au/en/news/All/Articles/2023/August/sustainable-aviation-industry-australia>

BUDGETED SUBSIDIES AND COSTS

Regional cooperation initiative on carbon sequestration

In 2023, the Federal Government and Opposition passed controversial legislation to allow for international shipment of carbon dioxide (CO₂). The legislation was widely seen as being designed for gas company Santos, which needed laws changed to facilitate a CCS proposal at its facilities in the waters of Timor-Leste.²¹

The new laws facilitated not only Santos' project but the possibility of international trade in waste CO₂. The Japanese and Korean Governments have enthusiastically embraced the opportunity to claim that future emissions will be stored underground in Australian territory, despite the idea being entirely unproven.²²

The Australian Government will spend \$32.6 million over four years to establish a regulatory framework to allow Australia to import carbon emissions from other countries and store them underground in geological storage sites.

Northern Endeavour decommissioning

An undisclosed amount will be spent by the federal government on decommissioning the Northern Endeavour offshore oil and gas facility, which was abandoned by its former owners. No estimate is included in our totals relating to the Northern Endeavour, which is expected to be covered by a decommissioning levy charged on the offshore gas industry.

Geoscience Australia

Geoscience Australia's *Building Australia's resources wealth* program aims to "build Australia's resource wealth by unlocking new exploration frontiers, securing a pipeline of future mineral and energy resource discoveries."²³ The funding for this program was \$11.2 million in 2023–24, which we have categorised as primarily dedicated to the oil and gas industry.²⁴

²¹ Long (2023) *How Labor out-loved the Coalition in its embrace of big oil and gas*,

<https://australiainstitute.org.au/post/how-labor-out-loved-the-coalition-in-its-embrace-of-big-oil-and-gas/>

²² Austrade (2024) *INPEX and Chubu Electric Power to explore CCS value chain between Japan and Australia*,

<https://international.austrade.gov.au/en/news-and-analysis/news/inpex-and-chubu-electric-power-explore-ccs-value-chain-between-japan-and-australia>

²³ Geoscience Australia (2024) Annual report 2023-24, p 15, <https://www.ga.gov.au/about/corporate-documents/annual-report>

²⁴ Geoscience Australia (2024) Annual report 2023-24, p 75

Gas Industry Social and Environmental Research Alliance (GISERA)

GISERA is a controversial research collaboration between state and federal governments, the gas industry, and the CSIRO. Its research integrity has often been called into question.²⁵

While its costs are not identified in Federal Government budget papers, GISERA's *Annual Research and Development Plan* includes financial details.²⁶ Not all of GISERA's funding is public: 30% comes from the gas industry. As such, only 70% of GISERA's spending has been included in our calculations.

The publicly-funded proportion of GISERA's budget in 2023–24 was \$11.2 million, and another \$13 million is allocated over the forward estimates. This has been included as a Federal Government subsidy because the Federal Government has supplied the majority of funding. This fossil fuel subsidy has been categorised as wholly dedicated to the gas industry.

Snowy Hydro—Kurri Kurri Hunter Power Project

The Federal Government owns 100% of Snowy Hydro, which is building the gas-fired Kurri Kurri Hunter Power Project. The most recent cost estimate for the project is \$950 million, and the project may not include a hydrogen component as previously promised.²⁷ The project is expected to enter the testing and commissioning phase in December 2024. We have used \$950 million as the figure for the project's total capital value.

Hunter Valley rail network—coal

The Federal Government-owned Australian Rail Track Corporation (ARTC) is responsible for the Hunter Valley Coal Rail Network. Previous ARTC annual reports have separately identified investment in coal infrastructure but this year they have not. Instead, it has been indirectly calculated. In the most recent annual report, ARTC has set a goal of 80% of accumulated growth capital invested in non-coal infrastructure, claiming that this was 85.4%

²⁵ See for example Ogge (2020) *CSIR...who? A closer look at recent research on coal seam gas environmental impacts*, <https://australiainstitute.org.au/report/csirwho-a-closer-look-at-recent-research-on-coal-seam-gas-environmental-impacts/>

²⁶ GISERA (2024) *Annual Research and Development Plan, Budget and Summary, 2024/25*, https://gisera.csiro.au/wp-content/uploads/2024/08/GISERA_Annual-Research-Development-Plan-and-Budget-2024-25.pdf and GISERA (2023) *Annual Research and Development Plan, Budget and Summary, 2023/24*, https://gisera.csiro.au/wp-content/uploads/2023/09/CSIROs-GISERA_Annual-Research-Development-Plan-and-Budget-2023-24.pdf

²⁷ Clennell (2023) *Kurri Kurri gas plant 'a year behind schedule' as costs soar above estimated price*, <https://www.skynews.com.au/business/energy/kurri-kurri-gas-plant-a-year-behind-schedule-as-costs-soar-above-estimated-price/video/9992ddc49904c6e93c3f1060264efd6d>

in 2023–24.²⁸ From this 14.6% must have been invested in coal. The ARTC 2023–24 Annual Report also states that the group has capital commitments of \$1,169.8 million, of which \$140.8 million (14.6%) is to be invested in coal infrastructure.

CONCESSIONAL FINANCE

Export Finance Australia

Export Finance Australia (EFA)—previously the Export Finance and Insurance Corporation (EFIC)—is Australia’s export credit agency. It has a long record of funding disastrous resource projects, including historic involvement in Papua New Guinea’s Ok Tedi mine and the Panguna mine that sparked the Bougainville civil war. More recently the organisation—and, therefore, Australian taxpayers—backed the PNG LNG project, which has contributed to armed conflict in PNG’s highlands and materially damaged PNG’s economy.²⁹

EFA has previously reported LNG projects separately but in its most recent annual report it has combined these figures with its figures for other mining projects, effectively hiding them from public scrutiny. Because of this last year’s figures have been used, giving EFA an overall exposure to the LNG industry of \$378 million.

Northern Australia Infrastructure Facility

The Northern Australia Infrastructure Facility (NAIF) is a \$5 billion fund that issues loans to infrastructure projects across northern Australia, including those in Queensland, Northern Territory and Western Australia.³⁰ It gained notoriety in 2016 due to links to the Adani coal project, and while it has since distanced itself from similarly controversial projects, it continues to issue subsidised loans to fossil fuel projects.

NAIF’s 2023–24 annual report includes funding to support the Perdaman Urea Project, which will be a major consumer of gas from nearby projects, including Woodside’s Scarborough field. This also helps support the Burrup Hub.³¹ NAIF will assist with \$220

²⁸ Australian Rail Track Corporation (2024) Annual report 2023–24, <https://www.artc.com.au/about/reports/annual-reports/>

²⁹ Fletcher & Campbell (2017) *Submission: Export Finance and Insurance Corporation Amendment (Support for Commonwealth Entities) Bill 2016 [provisions]*, <https://australiainstitute.org.au/report/export-finance-and-insurance-corporation-amendment-support-for-commonwealth-entities-bill-2016-provisions/>; Fox (2018) *Papua New Guinea’s massive LNG project fails to deliver on economic promises*, <https://www.abc.net.au/news/2018-04-30/png-lng-project-fails-to-deliver-on-economic-promises/9710136>.

³⁰ NAIF (n.d.) *Investing for impact across the north*, <https://naif.gov.au/>

³¹ Perdaman (2018) *Western Australia set for \$4.3b urea plant after Woodside gas deal*, <https://perdaman.com.au/2018/11/22/western-australia-set-4-3b-urea-plant-woodside-gas-deal/>

million in subsidised loans for related water and port infrastructure. We consider all of this to be wholly dedicated to fossil fuels.

NAIFs assistance to other fossil fuel projects is also included in our total figures:

- A \$168 million loan to the new Olive Downs Coal Mine;
- \$300 million in finance for the Darwin Ship Lift, which will partly assist the offshore oil and gas industry (the balance of the project is funded by the NT government—see the NT section for more detail);
- A \$16.8 million loan that was “integral” to the Onslow Marine Support Base, which services the offshore oil and gas industry; and
- A \$37 million loan to the owners of the gas-fired Hudson Creek Power Station in the NT.

Queensland

Queensland produces the most coal of any state and more gas than every state except Western Australia.³² Queensland has the most coal mines currently operating,³³ as well as the most proposed mines—of the 50 new coal projects listed on the Australian Government’s Major Projects list, 35 are in the state.³⁴

Via various state-owned corporations, the Queensland Government owns and operates coal mines and both coal and gas-fired power generators and is even developing a new gas field. It is these assets that receive the bulk of the Queensland Government’s spending on fossil fuel subsidies and assistance, which totalled \$834 million in 2024–25, as shown in Table 6 below:

Table 6: Queensland Government 2024–25 fossil fuel subsidies

Dedication to fossil fuels	2024–25 Budget spending (\$)	Concessions (\$)	Total 2024–25 assistance (\$)
Wholly	494,971,000	-	494,971,000
Primarily	242,420,000	51,700,000	294,120,000
Partly	96,842,000	948,300,000	1,045,142,000
Total	834,233,000	1,000,000,000	1,834,233,000

Source: Queensland Government (2024) Budget Papers 2024-25

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Research that matters.

Table 6 also lists “concessions”. These are a somewhat unique feature of Queensland’s budget, which lists the cost of under-pricing state services. Concessions relevant to fossil fuel industries relate to the use of the major coal and gas export ports and also to rail infrastructure used by the coal industry. As shown in Table 6, these concessions amount to \$1 billion; the vast majority (some \$946 million) relates to rail network infrastructure funding.

The total estimated fossil fuel subsidies, including capital values of non-ongoing projects and forward estimates for ongoing 2024–25 projects and programs, is almost \$6 billion. This is

³² Australian Government – Department of Climate Change, Energy, the Environment and Water (2023) *Australian Energy Update 2023*, Table I: Australian production of primary fuels, by state and territory, physical units, <https://www.energy.gov.au/publications/australian-energy-update-2023>

³³ Australian Government - Department of Industry, Science and Resources (2024), p. 47, 56, *Resources and Energy Quarterly - June 2024*, <https://www.industry.gov.au/publications/resources-and-energy-quarterly-june-2024>

³⁴ Australian Government – Department of Industry, Science and Resources (2024) *Resources and energy major projects: 2024*, <https://www.industry.gov.au/publications/resources-and-energy-major-projects-2024>

shown in Table 7, by dedication to fossil fuels. This is the amount that the Queensland Government anticipates it will spend in the longer term on projects that were funded this year.

Table 7: Queensland Government capital value and forward estimates

Dedication to fossil fuels	Capital values/forward estimates (\$)
Wholly	620,867,000
Primarily	956,273,000
Partly	4,398,751,000
Total	5,975,891,000

Source: Queensland Government (2024) Budget Papers 2024-25



Fossil fuel subsidies in Queensland have increased since 2023-24. This increase was driven by the ramping up of spending on the Brigalow gas peaking plant. There was also significant spending on the Callide Power Station, which was damaged in an explosion in 2021, albeit less than in 2023–24. The cost of ongoing maintenance for other coal-fired power stations—including the Kogan Creek Power Station (coal), Stanwell Power Station (coal) and Tarong Power Station (coal)—also drove up subsidies.

NEW QUEENSLAND FOSSIL FUEL SUBSIDIES

Several new subsidies have been added to this report for 2024–25:

- The Barcaldine Power Station upgrade is a \$75 million project that will add a 30MW hydrogen-ready gas generator. More information is below.
- The Queensland Government will spend \$1 million reviewing greenhouse gas storage in areas outside the Great Artesian Basin.
- The Queensland Government has also committed another \$70 million over four years for managing the “significant public health and safety, and environmental risks at high-risk abandoned mine sites”.³⁵

³⁵ Queensland Government (2024) *Budget Papers 2024-25, BP4*, p79

COAL MINES AND POWER STATIONS

Swanbank E Power Station

Swanbank E is a 385 megawatt (MW) gas-fired power station in South East Queensland operated by state-owned CleanCo.³⁶ Swanbank E was mothballed in 2014, but brought back online in 2017 with financing from the Queensland Government.³⁷ In March 2023, the Queensland Government announced plans to transform Swanbank E into a Clean Energy Hub, which will include green hydrogen infrastructure.³⁸ This year's budget allocates \$26 million to Swanbank E (up from \$12.9 million in 2023–24) for overhauls, maintenance and upgrades of generator units, including preparing for an overhaul of the gas turbines.

It is not yet clear whether these turbine upgrades will allow the plant to run on 100% hydrogen, or merely allow it to run on a blend of gas fuels that includes some hydrogen. As there is currently nowhere near a sufficient supply of green hydrogen to power this plant, it is most likely that these turbine upgrades will simply facilitate the continued use of natural gas, and possibly some gas-derived “grey” hydrogen.

CleanCo is also building and installing battery storage at the Swanbank site; \$274.8 million was allocated for this in 2024–25, and \$403.4 million for the whole project. This funding is not considered a fossil fuel subsidy.

Kogan North Gas Field

Gas from the Kogan North Gas Fields in the Darling Downs Region will supply the Swanbank E gas-fired power station.³⁹ The development is a joint venture between CleanCo and Arrow Energy, agreed to in October 2020.⁴⁰ The budget allocates \$6.9 million in 2024–25 and \$62.4 million for the whole project, which we have classified as wholly dedicated to fossil fuels.

³⁶ CleanCo Queensland (n.d.) *Factsheet Swanbank E Power Station*, https://cleancoqueensland.com.au/wp-content/uploads/Documents/Assets_and_Projects/Factsheet_Swanbank-E.pdf

³⁷ Morrison (2021) *Queensland writes off Swanbank E gas-fired power plant*, <https://www.argusmedia.com/en/news/2184709-queensland-writes-off-swanbank-e-gas-fired-power-plant>

³⁸ The Hon Mick de Brenni, Mr Lance McCallum (2023) *250MW Swanbank Battery as SEQ joins Clean Energy Hub revolution*, <https://statements.qld.gov.au/statements/97331>

³⁹ CleanCo Queensland (2021) *CleanCo Annual Report FY21*, <https://www.cleancoqld.com.au/wp-content/uploads/2021/09/CleanCo-Annual-Report-20214.pdf>

⁴⁰ Ibid.

CS Energy: Callide, Kogan Creek and Brigalow

Callide Power Station

Callide Power Station is a 1,525 MW black coal-fired power station in Biloela, Central Queensland, operated by government-owned CS Energy.⁴¹ Callide Power Station comprises three power stations—Callide A, Callide B and Callide C—that deliver energy to the National Electricity Market.

In May 2021, an explosion and fire at unit C4 of Callide C caused widespread blackouts that lasted several hours and affected almost 500,000 homes from southern Queensland to Cairns.⁴² Despite being one of the state's newest power stations, a "supercritical" plant built in 2001, Callide C broke down eight times in 2020 alone.⁴³ Energy lost in the 2021 blackout was replaced by energy from the Wivenhoe pumped-hydroelectric power station and Swanbank E gas-fired power station.⁴⁴

The 2024–25 budget allocates \$108.3 million to Callide Power Station for "overhauls, enhancements and refurbishments to existing infrastructure". This comes on top of the \$185 million allocated for these purposes last year and the \$45 million allocated in 2022–23.

Kogan Creek Power Station

Kogan Creek Power Station is a 750 MW black coal power station in southwest Queensland.⁴⁵ It is supplied by the Kogan Creek Mine, with run of mine (ROM) coal production of 2.8 Mtpa.⁴⁶ The budget allocates a total of \$45.6 million to the project—\$25.5 million to Kogan Creek Power Station and \$20.1 million to the Kogan Creek Mine—which we have classified as wholly dedicated to fossil fuels.

Brigalow Peaking Power Plant

On behalf of the Queensland Government, CS Energy has also begun development of the Brigalow Peaking Power Plant, which is adjacent to the Kogan Creek Power Station. This is a gas peaking plant that has been described as "hydrogen ready", because it is designed to

⁴¹ CS Energy (n.d.) *Callide Power Station*, <https://www.csenergy.com.au/what-we-do/generating-energy/callide-power-station/callide-power-station>

⁴² Smee (2021) *Queensland power plant explosion causes mass outages across state*, <https://www.theguardian.com/australia-news/2021/may/25/queensland-power-plant-explosion-causes-mass-outage>

⁴³ Smee (2021) *Coal-fired power plant that caused Queensland blackouts broke down eight times in past year*, <https://www.theguardian.com/australia-news/2021/may/26/coal-fired-power-plant-that-caused-queensland-blackouts-broke-down-eight-times-in-past-year>

⁴⁴ Smee (2021) *Coal-fired power plant that caused Queensland blackouts broke down eight times in past year*

⁴⁵ CS Energy (n.d.) *Kogan Creek Power Station*, <https://www.csenergy.com.au/what-we-do/thermal-generation/kogan-creek-power-station>

⁴⁶ CS Energy (2016) *Overview of Kogan Creek Mine*, <https://www.csenergy.com.au/who-we-are/reports-and-publications/all-reports-and-publications?dfaction=search&dfdtitle=kogan%20creek>

allow for a blended fuel mix of up to 35% hydrogen and 65% natural gas. Hydrogen will be supplied by the nearby Kogan Creek Renewable Hydrogen Demonstration Plant.

However, this plant only has a 1MW electrolyser, and given the 400MW capacity of the peaking plant, it seems unlikely that this plant will use green hydrogen in quantities anywhere near its technically possible 35/65 blend. Instead, it will rely on fossil gas from the Roma-to-Brisbane Pipeline and may also use grey or black hydrogen if available. As they are derived from natural gas and/or coal, these forms of hydrogen are both also fossil fuels.

Since the fraction of green hydrogen involved in this project is likely to be very small, we have classed the expenditure on the plant— \$174.6 million in the 2024–25 Queensland budget, and an expected total value of \$642 million—as being primarily dedicated to fossil fuels.

Stanwell Power Station

Stanwell Power Station is a 1,460 MW coal power station that supplies electricity to the National Electricity Market using black coal sourced from the Curragh Mine in Blackwater, Central Queensland.⁴⁷

In April 2021, Stanwell Corporation revealed plans to transition away from fossil fuels and towards renewables. These plans include trying to increase flexibility of electricity supply and the possibility of coal generating units being taken offline for parts of the year.⁴⁸

The budget allocates \$52.9 million to Stanwell Power Station to replace and refurbish existing infrastructure, which is down from \$60.9 million in 2023–24 which has been classified as wholly dedicated to fossil fuels.

Barcaldine Power Station

A total of \$75 million, including \$44.5 million in 2024-25, has been allocated for the construction of a 30MW hydrogen-ready gas generator at the state-owned Barcaldine Power Station,⁴⁹ where the existing gas fired generators are planned to be decommissioned in the next five years. It is not clear where the power station will source the hydrogen and how that hydrogen will be created; and given the scarcity of green hydrogen supply

⁴⁷ Stanwell (n.d.) Stanwell Power Station, <https://yhejitl3sl24wn203q4vn14z-wpengine.netdna-ssl.com/wpcontent/uploads/FactSheet-Stanwell-MAY-2018.pdf>

⁴⁸ Smee (2021) *Australia's third-largest carbon emitter says it must transition to renewables and curtail coal plants*, <https://www.theguardian.com/australia-news/2021/apr/21/stanwell-corporation-australia-third-largest-carbon-emitter-says-it-must-transition-to-renewables-and-curtail-coal-plants>

⁴⁹ Department of Energy and Climate (2024) *Hydrogen investment and funding*, <https://www.energyandclimate.qld.gov.au/hydrogen/information-for-industry/hydrogen-investment-and-funding>

discussed above, the reality is Barcaldine Power Station will continue to rely on fossil gas to generate electricity for the foreseeable future. As such, this upgrade has been classed as primarily a fossil fuel subsidy.

Meandu mine & Tarong Power Station

The Meandu coal mine is operated by the state-owned Stanwell Corporation and services Stanwell's coal-fired Tarong Power Stations. Meandu has five working pits and produces up to seven million tonnes of coal each year.⁵⁰ The mine is also used to deposit ash waste from Tarong Power Stations.⁵¹

In August 2021, Stanwell committed to expanding the Meandu mine, increasing pit size by 7% but maintaining the mine's total production rate to ensure feedstock for Tarong and Tarong North power stations.⁵² The 2024–25 budget allocates \$50.2 million to the Meandu mine—up from \$29.5 million in 2023–24—which has been classified as wholly dedicated to fossil fuels.

The Tarong Power Stations are among Queensland's largest electricity generating sites, comprised of four units capable of producing 350 MW and one with a capacity of 443 MW.⁵³ In December 2020, Stanwell Corporation wrote down the value of both the Tarong Power Stations and the Stanwell Power Station by a total \$719.5 million.⁵⁴ The 2024–25 budget allocates \$131.4 million—up from the previous year's \$77.2 million—to Tarong Power Station, for the replacement and refurbishment of existing infrastructure. We have classified this expenditure as being wholly dedicated to fossil fuels.

PORTS

Fossil fuel subsidies in the Queensland budget include funding for a number of ports. Queensland's port sector is a significant recipient of budget infrastructure funding intended to support both imports and exports. Port-related budget funding is granted to four port companies: Far North Queensland Ports Corporation Limited, Gladstone Ports Corporation Limited, North Queensland Bulk Ports Corporation Limited and the Port of Townsville Limited. These companies manage imports and exports of fossil fuels (gas, coal,

⁵⁰ Stanwell (n.d.) Meandu Mine, <http://www.stanwell.com/wp-content/uploads/Fact-sheet-Meandu-MineAUGUST-2016.pdf>

⁵¹ Ibid.

⁵² Hunt (2021) *Stanwell to expand Meandu coal mine*, <https://www.miningmonthly.com/life-cycle-end-of-life-management/news/1415088/stanwell-to-expand-meandu-coal-mine>

⁵³ Stanwell (n.d.) *Our power stations*, <https://www.stanwell.com/energy-assets/our-power-stations/>

⁵⁴ Mazengarb (2020) *Queensland budget delivers \$500m renewables fund, as coal plant revenues slump*

oil/petroleum products), along with other commodities such as timber, sugar, cargo, agricultural and food products, and minerals.

Far North Queensland Ports Corporation Limited

Far North Queensland Ports Corporation Limited, trading as Ports North, owns and manages the Port of Cairns and other small ports in Far North Queensland, and trades a range of products. In the 2022–23 financial year, the Port of Cairns imported over 500,000 tonnes of petroleum products.⁵⁵ Funding of \$10.6 million in the budget for Far North Queensland Ports Corporation is partly dedicated to fossil fuels and goes to general cargo consolidation, plant, equipment, minor works and channel navigation improvements.

Gladstone Ports Corporation Limited

Gladstone Ports Corporation Limited operates the Port of Gladstone and Port Alma. Fossil fuel trade occurs primarily through the Port of Gladstone, which is by far the largest of all Gladstone ports. Coal and LNG make up 91% of exports from the Port of Gladstone; a small amount of LP gas, petroleum coke and other petroleum products are imported via this facility.⁵⁶ Relevant funding for the Gladstone Ports Corporation goes to the RG Tanna Coal Terminal Projects (\$60.5 million, which we have classified as wholly dedicated to coal), as well as information systems projects, wharf improvements, and plant, equipment, and minor works totalling \$20.1 million, which we have classified as primarily dedicated to fossil fuels.

North Queensland Bulk Ports Corporation Limited

North Queensland Bulk Ports Corporation operates the Ports of Mackay, Weipa, Abbot Point and Hay Point. Hay Point is the largest metallurgical coal export port in the world. Abbot Point is the Australia's northernmost coal export port,⁵⁷ while petroleum is the largest throughput for the Port of Mackay.⁵⁸ Overall trade through North Queensland Bulk Ports increased by 4.8% in 2022–23, with coal making up 88% of throughputs for all North

⁵⁵ Ports North (2023) *Ports North Annual Report 2022 | 2023*, p 17, <https://documents.parliament.qld.gov.au/tp/2023/5723T1464-ED43.pdf>

⁵⁶ Gladstone Ports Corporation Limited (2023) *Cargo Statistics Selections*, <https://content3.gpcl.com.au/viewcontent/CargoComparisonsSelection/>

⁵⁷ North Queensland Bulk Ports Corporation (2023) *North Queensland Bulk Ports Annual Report 2022/23*, https://nqbp.com.au/__data/assets/pdf_file/0024/39750/NQBP-annual-report-2022-23.pdf

⁵⁸ North Queensland Bulk Ports Corporation (2023) *North Queensland Bulk Ports Annual Report 2022/23*; North Queensland Bulk Ports Corporation (2024) *Throughputs*, <https://nqbp.com.au/trade/throughputs>

Queensland Bulk Ports. Of these coal exports, 80% are metallurgical coal and 20% thermal coal.⁵⁹

Fossil fuel funding in the budget goes to projects for Abbot Point, Hay Point and the Port of Mackay for general development, business improvements and a range of small projects including dredging, wharf improvement, and building upgrades. Works on the Middle Breakwater fuel line at the Port of Mackay are designed to increase resilience of refuelling services to storm damage.⁶⁰ Funding for Abbot Point and Hay Point projects are classified as wholly dedicated to fossil fuels, while other projects are classified as primarily or partly dedicated to fossil fuels. Fossil fuel subsidies for the North Queensland Bulk Ports Corporation were \$27.7 million in the budget, an increase from \$18.5 million in 2023–24.

Port of Townsville

The Port of Townsville is a major Queensland port through which companies including Shell, Mobil, Caltex, BP, and Ampol have been importing oil and petroleum products since the 1930s.⁶¹ The Port of Townsville imports and exports a range of products, including cement, vehicles, sugar, timber, agricultural products and minerals.⁶² Liquid fuel was the largest import in 2022–23, comprising 51% of total imports, up 9% from 2020–21.⁶³ The Townsville Hydrogen Hub for green hydrogen is currently in its early stages, and will use Port of Townsville infrastructure.⁶⁴

The Townsville Channel Capacity Upgrade (TCCU) was the largest fossil fuel subsidy provided to the Port of Townsville in 2023–24, as it has been for the past three years. The project will deliver 62 hectares of reclaimed land for port operations and widen the shipping channel to allow access to larger vessels and increase trade capacity for the region. It has been allocated \$18.4 million for the coming year, in which it is due to be completed; this funding is classified in this report as partly dedicated to fossil fuels. The TCCU has also previously received funding from the Australian Government.

⁵⁹ Ibid.

⁶⁰ North Queensland Bulk Ports Corporation (2023) *Port of Mackay Community Reference Group meeting*, https://nqbp.com.au/__data/assets/pdf_file/0020/39215/Mackay-CRG-Presentation-9-March-2023.pdf

⁶¹ Port of Townsville (n.d.) *Port History*, <https://www.townsville-port.com.au/about/port-history/>

⁶² Ibid.

⁶³ Port of Townsville (2021) *Annual Report 2020-21*, https://s3-ap-southeast-2.amazonaws.com/os-data-2/townsville-port-2/bundle13/annual_report_2020-21.pdf

⁶⁴ Australian Government – Department of Climate Change, Energy, the Environment and Water (2023) *Townsville Region Hydrogen Hub grant guidelines available*, <https://www.dcceew.gov.au/about/news/townsville-region-hydrogen-hub-grant-guidelines-available>

Other funding for the Port of Townsville totalling \$24.5 million goes to plant, equipment and minor works, road network upgrades and wharf facilities upgrades; all of these are classified in this report as primarily for fossil fuels.

INDUSTRIAL PRECINCTS

Gladstone State Development Area

The Gladstone State Development Area connects major rail and roads to processing facilities and ports for large industrial activities, including a number of fossil fuel-related activities. The Gladstone State Development Area that contains large liquefaction facilities including Australia Pacific LNG, Santos Gladstone LNG, Queensland Curtis LNG, as well as Southern Oil's northern oil refinery.⁶⁵ The budget dedicates \$1.6 million to the Gladstone State Development area which has been classified as partly dedicated to fossil fuels.

Salisbury Plains Industrial Precinct

The Salisbury Plains Industrial Precinct is located within the Abbot Point State Development Area and has been identified by the Queensland Government as being suitable for supporting infrastructure for the Adani/Carmichael Rail, Adani Abbot Point Coal Terminal, GVK Hancock Rail and Queensland Coal Investment projects.⁶⁶ Industries considered suitable for the area include an LNG facility, a fuel storage facility and associated infrastructure, and extractive industries.⁶⁷ The budget dedicates \$250,000 to the Salisbury Plains Industrial Precinct, a figure classified in this report as primarily dedicated to fossil fuels.

Townsville Regional Industrial Estate

Budget papers refer to spending on the "Townsville Regional Industrial Estate", which appears to be within the Townsville State Development Area. The Townsville State Development Area serves the Port of Townsville and nearby roads and rails that provide

⁶⁵ Queensland Government (n.d.) *Gladstone State Development Area*, <https://www.statedevelopment.qld.gov.au/coordinator-general/state-development-areas/current/gladstone-state-development-area>

⁶⁶ Economic Development Queensland (n.d.) *Salisbury Plains Industrial Precinct*, <https://industrial.edq.com.au/Salisbury-Plains-Industrial-Precinct-property-for-sale>

⁶⁷ Economic Development Queensland (n.d.) *Salisbury Plains Industrial Precinct*

access to industrial and resource development areas.⁶⁸ The Townsville State Development Area is currently home to a number of industrial facilities, including Origin Energy's Mt Stuart gas-fired peaking generator plant.⁶⁹ The budget dedicates \$200,000 to the Townsville Regional Industrial Estate, the same amount dedicated in the previous budget. This has been classified as partly dedicated to fossil fuels.

CONCESSIONS

Concessions in the Queensland budget include targeted discounts, rebates and subsidies for Queenslanders and businesses. These are listed in the Concessions Statement and include both direct budget outlays (i.e. fee subsidy payments) and forgone revenue (i.e. revenue lost through reduced fees and charges). Only concessions above the minimum materiality threshold of \$50,000 in forgone revenue are included in the Concessions Statement.⁷⁰

Concessions that constituted fossil fuel subsidies include those made by port corporations to organisations and businesses; such concessions delivered by government-owned corporations (GOC) include:

- Rail network and infrastructure funding worth \$946.3 million, which we determine to be partly dedicated to fossil fuels (various);
- Funding to Far North Queensland Ports Corporation Limited worth \$2 million, which we determine to be partly dedicated to fossil fuels (oil);
- Funding worth \$43.4 million to Gladstone Ports Corporation Limited, which we determine to be primarily dedicated to fossil fuels (various);
- Funding worth \$1.5 million to North Queensland Bulk Ports Corporation Limited, which we determine to be primarily dedicated to fossil fuels (various); and
- Funding worth \$6.8 million to the Port of Townsville Limited, which we determine to be primarily dedicated to fossil fuels (oil).

All of the above GOCs also provide concessions via Concessional Leases (Industry, Commercial and Community), which are provided below commercial rates to industry participants. Gladstone Ports Corporation Limited also provides Concessional Port Charges where port charges are contracted at significantly below market rates.⁷¹

⁶⁸ Queensland Government (n.d.) *Townsville State Development Area*, <https://www.statedevelopment.qld.gov.au/coordinator-general/state-development-areas/current/townsville-state-development-area>

⁶⁹ Ibid.

⁷⁰ Queensland Government (2024) *Queensland Budget 2024-25 – Budget Strategy & Outlook | Budget Paper No. 2* p. 208

⁷¹ Ibid.

The largest relevant item in the Concession Statement relates to rail network and infrastructure funding. It seems likely that this item relates almost wholly to the coal industry, as concessions relating to public transport and agricultural freight are covered in other lines of the Statement. Nevertheless, we have categorised this item as only partly related to fossil fuels, as the description in the Concession Statement includes references to other users.⁷²

The Concessions Statement identifies that GOC concessions below the minimum materiality threshold of \$50,000 forgone revenue were also delivered by CS Energy, Stanwell and CleanCo, which own and operate fossil fuel related projects and sites as detailed previously.

⁷² Queensland Government (2024) *Queensland Budget 2024-25 – Budget Strategy & Outlook | Budget Paper No. 2*, p. 230

Western Australia

Analysis of the most recent Western Australian (WA) Government budget papers suggests fossil fuel assistance measures of \$290.3 million in 2024–25. Over the full budget projection period to 2027–28, the total assistance provided to fossil fuel industries is expected to be around \$1.4 billion.

Given that WA is the nation’s largest oil and gas producing state, the vast majority of the assistance—\$246 million, or 85%—is directed to the oil and gas industry. A small amount of assistance is directed to the remaining coal-fired electricity generating assets owned by Synergy, the WA Government-owned electricity supplier.

A significant majority of the assistance provided by the WA government—\$221 million or 76%—is categorised as only partly benefiting fossil fuels. These assistance measures notionally support a wide range of industries, particularly through investment promotion schemes. Projects within the schemes often explicitly support the gas industry and carbon sequestration projects, but the precise budgets of these projects can be difficult to isolate. The remaining 24%—worth some \$69.8 million—is considered as being wholly aimed at supporting fossil fuels. This means that none of the WA Government’s subsidies fall into the “primarily targeted” category.

Table 8 outlines the breakdown of the subsidies by fossil fuel and scope for 2024–25 and for total subsidies over the projection period.

Table 8: Western Australia fossil fuel assistance, by fuel and scope

	2024–25 expenditure (\$)	Capital values/forward estimates (\$)
Wholly	69,777,000	247,051,000
Primarily	-	-
Partly	220,569,000	1,129,459,000
Total	290,346,000	1,376,510,000
Coal	20,540,000	28,851,000
Gas	245,878,000	756,367,000
Various	23,928,000	591,292,000
Total	290,346,000	1,376,510,000

Source: Government of Western Australia (2024) Budget Papers



Subsidies and assistance measures are projected to be lower in 2024–25 than in 2023–24: the \$290.3 million budgeted for 2024–25 is \$128.2 million less than in 2023–24, a difference of 31%.

It is important to note that while this appears to represent a significant reduction in subsidies, the difference comes mainly from the availability of data on recipients of funding from the state's Investment Attraction Fund (discussed below). Such data was not available in previous years, so the Fund's entire annual expenditure was included as a partial subsidy. The new data makes it possible to estimate the size of wholly dedicated grants to individual fossil fuel projects.

In short, then, the change should not be interpreted as reflecting a change in WA Government policy.

INVESTMENT ATTRACTION FUND

The WA Government's Investment Attraction Fund partially supports the fossil industries by "prioritising identified projects and sectors for strategic development including energy primary industries... and mining equipment".⁷³ Some grants from this fund are not related to fossil fuels, but grants to four projects have been classified as being subsidies that wholly benefit the oil and gas industry:

- \$15 million to Australian Gas Infrastructure Group for the construction and operation of a transmission pipeline for an offshore, multi-user carbon capture and storage (CCS) hub in WA's Pilbara region;
- \$15 million to Future Energy Exports, an LNG exporter for an energy transformation hub;
- \$11 million to Mitsui E&P Australia for the Cygnus carbon capture and storage hub; and
- \$2.4 million to Onslow Marine Support Base for optimisation of a gas marine support base.

STRATEGIC INDUSTRIES FUND

The Strategic Industries Fund is delivering common user and other enabling infrastructure at strategic industrial areas across the state. The strategic industrial areas are located around several existing LNG exporting areas and could therefore be considered as support related to seaports and the LNG industry.⁷⁴ In addition, four of the six areas have some dealings

⁷³ WA Government (2024) *Investment Attraction Fund*,

<https://www.investandtrade.wa.gov.au/opportunities/investment-attraction-fund>

⁷⁴ WA Government (2024) *Strategic Industrial Areas – Western Australia*, <https://siawa.com.au/>

with either gas, petroleum, or coal, and all these areas also target new carbon capture, utilisation and storage projects.⁷⁵

Only \$6 million was spent in 2024–25 but the \$500 million fund has been included in the capital value as a partial subsidy to various industries.⁷⁶

The government is also spending \$1.5 million on subsidised leases in strategic industrial areas, including a 100% rebate for eligible tenants,⁷⁷ and \$17.2 million will be spent on an access road to the Oakajee Strategic Industrial Area.⁷⁸ This new industrial area is adjacent to a deep-water port with natural gas identified as a target industry.

HYDROGEN

An important area of consideration for subsidies to the fossil fuels industries in WA relates to policies and assistance measures aimed at the development of hydrogen projects. Such measures are often described as being aimed at the development of green hydrogen infrastructure, or the industry more generally. It can be difficult to ascertain whether, if the ‘green’ aspect of the relevant project fails, the project will remain as an assistance measure for fossil fuel-based hydrogen.

One such project is the Pilbara Hydrogen Hub,⁷⁹ which is to receive almost \$15 million in 2024–25. While it is notionally focused on green hydrogen, the project aims to develop “large scale hydrogen production” as well as pipelines to Maitland and Burrup Strategic Industrial Areas, both of which have extensive gas industry facilities.⁸⁰ As such, this subsidy is treated as partially benefiting fossil fuels.

The budget papers, under industry development, also allocate almost \$18 million to renewable hydrogen.⁸¹ The focus of this program does not appear to include fossil fuels and so we have not included it in our calculation of fossil fuel subsidies. Future editions of this report will continue to monitor the documented government assistance to green hydrogen initiatives closely, along with the likelihood they are evolving into explicit fossil fuel subsidies.

⁷⁵ WA Government (2024) *Diversify WA: Future State: Targeted diversification opportunities*, <https://www.wa.gov.au/government/publications/diversify-wa-future-state>

⁷⁶ WA Government (2024) *Western Australia State Budget 2024-25, Budget Paper 2, Vol 1*, p.193 and p.129

⁷⁷ WA Government (2024) *Western Australia State Budget 2024-25, Budget Paper 2, Vol 1*, p.127

⁷⁸ WA Government (2024) *Western Australia State Budget 2024-25, Budget Paper 2, Vol 1*, p.205

⁷⁹ WA Government (2024) *Western Australia State Budget 2024-25, Budget Paper 2, Vol 1*, p.194

⁸⁰ Pilbara Development Commission (2024) *Pilbara Hydrogen Hub*, <https://www.pdc.wa.gov.au/our-focus/projects/pilbara-hydrogen-hub.aspx>; WA Government (2024) *Western Australia State Budget 2023-24, Budget Paper 2, Vol 1*, p.218 <https://www.ourstatebudget.wa.gov.au/budget-papers.html>

⁸¹ WA Government (2024) *Western Australia State Budget 2024-25, Budget Paper 2, Vol 1*, p.205

PORT AUTHORITIES

Fossil fuel assistance provided by WA Government Business Enterprises is for the most part delivered by several port authorities supporting the further development of primarily LNG exporting seaports. In 2024–25 the WA port authorities are expected to provide \$149 million.

This type of assistance is classed as partly assisting fossil fuel industries since the aims of the identified projects is often to expand port facilities to support a range of industries. However, these facilities are often situated in major LNG ports. For example, the Pilbara Ports Authority's is providing \$99 million to the Dampier Bulk Handling Facility,⁸² a new facility that will be used by several industries, including "vessels supporting the offshore oil and gas industry."⁸³

SYNERGY

There is also significant support for fossil fuels from the government-owned electricity producer, Synergy. In 2024–25, it is expected that \$63.8 million will be spent supporting fossil fuels, both coal and gas, via various upgrades and maintenance projects to electricity generating assets. The only WA government assistance that supports coal is Synergy's expenditure on the remaining coal-fired generators at the Muja and Collie power stations.

The largest subsidy of \$25.1 million is for the Pinjar gas fired power station for turbine rotor replacements and general plant maintenance.⁸⁴

⁸² WA Government (2024) *Western Australia State Budget 2024-25, Budget Paper 2, Vol 2*, p.656

⁸³ Pilbara Ports (n.d.) *Dampier Cargo Wharf Projects*, <https://www.pilbaraports.com.au/current-projects/dampier-cargo-wharf-projects>

⁸⁴ WA Government (2024) *Western Australia State Budget 2024-25, Budget Paper 2, Vol 2*, p.781

Northern Territory

In late April 2024, the NT Government announced that it had agreed to purchase gas from a controversial gas project located in the Beetaloo Basin.⁸⁵ This announcement brought into focus the wide range of subsidies that NT Governments have lavished for decades upon the gas industry—from multi-billion dollar purchase commitments, through the millions spent on investment promotion, to the under-charging of administrative fees and unrecovered costs.

Little gets done by Territory governments without Commonwealth assistance, and the NT’s subsidies for the gas industry are no exception. The Beetaloo announcement would probably have been impossible without the hundreds of millions of dollars spent on road construction focused on the gas industry—all funded by the Commonwealth. The Commonwealth has also put \$1.9 billion into assisting petrochemical industries with infrastructure at Middle Arm, despite the development being opposed by many civil society organisations in the NT and beyond.

Table 9 below shows that the NT Government will provide \$202 million in assistance to the oil and gas industry in the 2023–24 budget year, with \$3.6 billion budgeted over the longer term.

Table 9: NT government 2024–25 fossil fuel subsidies

	2024–25 expenditure (\$)	Capital values/forward estimates (\$)
Wholly	67,573,000	3,355,435,000
Primarily	-	-
Partly	134,277,000	293,908,000
Total	201,850,000	3,649,343,000
Coal	-	-
Gas	201,850,000	3,649,343,000
Various	-	-
Total	201,850,000	3,649,343,000

Sources: NT Government Budget Papers, Power & Water Corp corporate documents



POWER AND WATER CORPORATION

The Northern Territory Government’s Power and Water Corporation (PWC) manages utilities across the NT. Unlike traditional public utilities, it is also a significant trader of gas. In

⁸⁵ Dick, Fitzgerald and Morgan (2024) *NT government signs deal with Tamboran Resources to buy Beetaloo Basin gas*, <https://www.abc.net.au/news/2024-04-23/nt-beetaloo-basin-power-nt-generators/103757000>

the words of one PWC executive, the corporation's gas division is a "multi-billion dollar gas and asset portfolio" that has "successfully entered into the Australian east coast gas market".⁸⁶

The "success" of PWC's gas division is debatable. The corporation's notional main supplier is the Blacktip project off the coast of Wadeye, operated by Italian company Eni. PWC has a long-term commitment to buying large amounts of gas from Blacktip—far more, in fact, than the NT can use. As a result, the corporation has made agreements to sell some of this supply on to the east coast market.

Unfortunately for PWC, Blacktip has failed to deliver the gas that it has committed to buy. This has forced PWC to buy gas from the LNG exporters in Darwin Harbour.⁸⁷ Worse still, PWC has gas transport commitments worth \$622 million,⁸⁸ much of which is contracted to the owners of the Northern Gas Pipeline that connects the NT to the east coast market via Mt Isa. PWC likely has to pay for this pipeline agreement if it does not have gas to sell.⁸⁹

In 2023-24, while most gas companies were making immense windfall profits, PWC's gas division lost \$21 million.⁹⁰

As detailed in earlier versions of this report, the debacle of Blacktip is not simply bad luck. This project was not necessary and was subsidised into existence by the NT Government and PWC's multi-billion gas purchase agreements. This was clear to PWC and NT government decision-makers at the time the agreements were made, with the NT Utilities Commission noting in 2006:

Contract quantities available from Blacktip will be in excess of projected requirements under the Commission's high growth scenario through to 2015–16 and beyond.⁹¹

In order to sell the gas it knew it did not need, the NT Government later commissioned the Northern Gas Pipeline, which "successfully" linked the NT to the eastern market upon its completion in 2019. This pipeline was designed only to transport gas from the NT to

⁸⁶ Murphy (n.d.) *LinkedIn profile*, <https://www.linkedin.com/in/antoni-murphy-4757376a/details/experience/>

⁸⁷ Hislop (2025) *NT's 2030 renewable energy target in doubt as gas-fired power plant gets life extension*, <https://www.abc.net.au/news/2025-03-03/nt-channel-island-gas-renewable-energy-target-solar-farms/104983372>

⁸⁸ PWC (2024) *Statement of corporate intent 2024-25*, <https://www.powerwater.com.au/about/what-we-do/our-plans-and-values/past-corporate-reports>

⁸⁹ Fitzgerald (2024) *Northern Gas Pipeline stops flowing from NT to east coast*, <https://www.abc.net.au/news/rural/2024-03-20/northern-gas-pipeline-ceases-delivery-after-gas-shortfall/103602054>

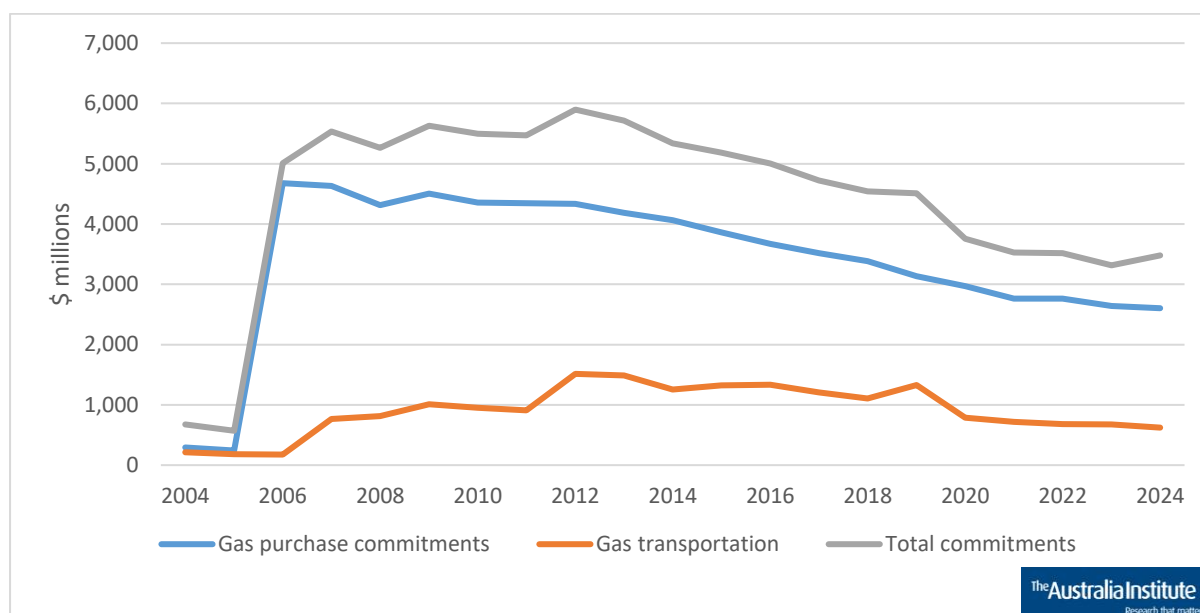
⁹⁰ Gas sales revenue was \$240.1 million while gas sales costs were \$261.2 according to PWC (2024) *Statement of corporate intent*.

⁹¹ NT Utilities Commission (2006) *Annual power system review December 2006*, https://utilicom.nt.gov.au/__data/assets/pdf_file/0008/743039/2006_PSR_final.pdf

Queensland; the latest PWC annual report includes expenditure of \$18.9 million in 2023–24 to enable the pipeline to flow in reverse, presumably to allow PWC to buy gas back from the east coast market to cover future shortfalls from Blacktip.

The subsidies that facilitated Blacktip and the Northern Gas Pipeline are still large items in PWC's financial statements. As shown in Figure 7 below, these commitments are declining as time progresses, but still total over \$3.2 billion in 2023-24.

Figure 7: Power and Water Corporation gas commitments



Source: PWC annual reports

The data in Figure 7 does not include the new agreement announced in April 2024. This agreement was made between the NT Government and controversial fracking company Tamboran, is estimated to be worth around \$1 billion, and commits the NT to purchasing gas from the Beetaloo Basin.⁹² The arrangement would follow the same path as Blacktip: a PWC purchase commitment will be used to subsidise a new fossil gas project owned by a multinational corporation, with little assessment or explanation of the public interest case for the project.

The PWC's gas business does not only represent a cost to the NT taxpayer and a subsidy to multinational fossil fuel companies; it also presents the NT government with a major conflict of interest. The NT government cannot make impartial assessments of controversial gas projects when it owns a gas supplier of this size, especially if that supplier is committed to buying gas from those very projects.

⁹² Morgan (2024) *Tamboran and NT government's secretive Beetaloo Basin gas deal criticised by industry, experts*, <https://www.abc.net.au/news/2024-04-26/concerns-over-nt-government-and-tamboran-beetaloo-gas-deal/103769966>

In addition, renewable energy projects now present a “risk” to NT government revenue, as is clear in PWC reports:

We have in place long term contracts to procure gas and associated transport arrangements. The fixed price nature of the long term gas contracts, the volatility in the market price of gas, the pricing and volume risk from as yet unsecured contracts, increasing competition in the gas supply market and more recently the potential impact from the displacement of gas by renewables over time are risks to the corporation’s ability to sell the gas at a price higher than the cost of gas and transport.

...

The sources of estimation uncertainty in the [gas] contracts have a significant risk of resulting in a material adjustment to the value of this asset and include the underlying assumption that all gas purchased is on sold; the outcome of current contract negotiations with customers; renewables penetration;...⁹³

Given the position of PWC and its perception of renewable energy as a risk to the value of its multi-billion dollar gas assets, it is perhaps not surprising that the NT Government is now looking to extend the life of the Territory’s gas-fired power generators.⁹⁴

The loss by the PWC’s gas sales division of \$21.1 million has been included in Table 9 as a cost in this budget year, as has its expenditure on the Northern Gas Pipeline Reversal Project. The total outstanding gas purchase and gas transport commitments—over \$3.2 billion—are included as the total/capital value of the long-term assistance provided to gas production and sales by these commitments.

CHIEF MINISTER AND CABINET

Parts of the Department of the NT’s Chief Minister and Cabinet promote and assist the gas industry. Investment Territory is a part of the Department of Chief Minister and Cabinet, and is charged with facilitating “major projects and significant investments in the Territory”. As part of its remit, Investment Territory “lead[s] the coordination and delivery of the Territory’s gas strategy and development of a gas-based manufacturing industry.”⁹⁵ Of Investment Territory’s \$22.4 million budget, \$5 million per year has been allocated to the Territory’s gas strategy, based on earlier NT budgets that included \$5 million per year for a “Gas Taskforce” that has now been absorbed into Investment Territory.

⁹³ PWC (2024) *Annual report*, p54, <https://www.powerwater.com.au/about/what-we-do/our-plans-and-values/past-corporate-reports>

⁹⁴ Hislop (2025) *NT’s 2030 renewable energy target in doubt as gas-fired power plant gets life extension*

⁹⁵ NT Government (2023) *Budget Paper 3*, p16

COMMONWEALTH COLLABORATION

The Commonwealth subsidises the NT's gas industry infrastructure, including an export precinct and other shipping facilities that benefit the offshore gas industry.

Middle Arm Sustainable Development Precinct

The Morrison government's March 2022 Budget included a \$7.1 billion Energy Security and Regional Development Plan, which was intended to "turbocharge" the economies of regional hubs—including an NT industrial hub.⁹⁶ The Albanese government's October 2022 federal budget included \$1.9 billion for the development of the Middle Arm "Sustainable Development Precinct". The Precinct was originally described as a "new gas demand centre",⁹⁷ but the NT government insists that it is "not a petrochemical plant".⁹⁸ This is despite contradictory information on many of the NT government's websites and other promotional materials, and FOI evidence that staff were instructed to try to remove the word "petrochemicals" from official material.⁹⁹

The NT Government budgeted to spend \$13 million on business case development and preliminary works in total, with \$10 million in 2024–25. This money also includes work on the Tennant Creek to Darwin infrastructure corridor. "The Tennant Creek to Darwin Infrastructure Corridor project aims to enable development of the natural gas industry in the Territory along with capability and capacity to support future emerging projects."¹⁰⁰ This has been categorised as primarily a subsidy to the gas industry.

Darwin ship lift

The NT Government, in conjunction with the Federal Government's Northern Australia Infrastructure Facility (NAIF), is building ship maintenance facilities at the Port of Darwin, including a ship lift capable of lifting 5,500 tonnes. These will partly benefit the oil and gas industry.

⁹⁶ Federal Government (2022) *March Budget Paper 2*, p133

⁹⁷ Gibson (2022) *Business case for Middle Arm Sustainable Development Precinct triggers climate concerns from critics*, <https://www.abc.net.au/news/2022-12-29/nt-middle-arm-sustainable-development-precinct-climate-concerns/101809178>

⁹⁸ Walsh (2022) 'Factually wrong': Fyles says no petrochemical plant for Middle Arm: govt website contradicts her, *NT Independent*, <https://ntindependent.com.au/factually-wrong-fyles-says-no-petrochemical-plant-at-middle-arm-govt-website-contradicts-her/>

⁹⁹ Gibson (2023) *Emails confirm staff in NT chief minister's department deleted references to 'petrochemicals' from Middle Arm websites*, <https://www.abc.net.au/news/2023-04-06/middle-arm-nt-petrochemicals-term-deletion-chief-minister-staff/102157920>

¹⁰⁰ NT Government (2024) *Budget Paper 3*, p77

Budget papers state that the project has a total capital value of \$515 million, with \$107.8 million to be spent in the 2024–25 budget year. This has been included in Table 9 above in 2024–25 as spending partly attributable to fossil fuel industries. The NAIF’s \$300 million contribution is included in the Federal Government section.

Gas roads

The Morrison government first planned to subsidise onshore gas by funding the NT Gas Industry Road Upgrades. Last year’s budget included \$214.8 million to “upgrade and or seal gas industry roads to support economic development”, split between the Commonwealth and NT Governments. No “gas industry roads” or similar were found in the 2024-25 budget papers, suggesting these projects have been completed.

However, there remains significant spending on “industry roads”. It is unclear whether these roads are directed at the onshore gas industry, and they have therefore not been included in this report’s calculations.

The reduction in spending on gas roads is the main reason for the lower overall level of estimated NT fossil fuel assistance in 2024–25 than in 2023–24.

PORT AND INDUSTRIAL PRECINCT DEVELOPMENTS

The construction of the Darwin ship lift is accompanied by the development of a wider “Marine Industry Park”, partly because Darwin is “adjacent to major onshore gas developments and offshore supply bases”. The Park is described by the Territory government’s Land Development Corporation as “provid[ing] a unique opportunity to capitalise on Darwin’s expanding gas, marine services and Defence industries.”¹⁰¹ The Park is budgeted to receive \$15.5 million in this budget, largely via the Land Development Corporation. The Middle Arm Sustainable Development Precinct will also receive \$1 million from the Land Development Corporation and this has been classified as partly dedicated to fossil fuels.

MINES AND ENERGY

The Department of Industry, Tourism and Trade’s Mines and Energy group includes two programs that subsidise the gas industry.

The Resource Industry Development Services program includes \$16.5 million in 2024-25 to:

¹⁰¹ Land Development Corporation (2023) *Marine Industry Park*, <https://landdevcorp.com.au/project/marine-industry-park/>

...support resource exploration through the acquisition, management, delivery and promotion of geoscience information and data. Manage statutory reporting of exploration and production, and provide access to industry reports, data and drill core. Advance recommendations made by the Mineral Development Taskforce to increase the Territory's competitiveness as a mining project investment destination.¹⁰²

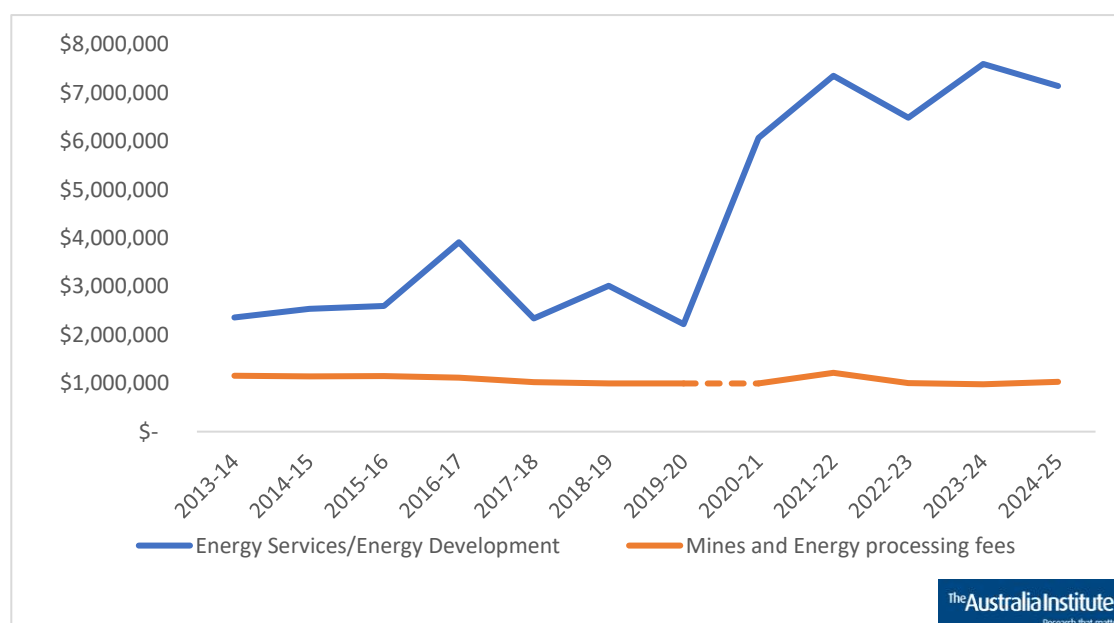
The Energy Development program, meanwhile, works to:

...advance the Territory's economic development and energy security through administration of exploration applications and permits, licences, resource management, operational approvals and regulatory activities, including monitoring and compliance under the Petroleum Act 1984 and Energy Pipelines Act 1981.¹⁰³

A recommendation of the 2018 Fracking Inquiry commissioned by the NT government was that the expense of the Energy Development program should be recovered from gas companies. The government committed to implement all the Inquiry's recommendations, but five years later, under-recovery of the Energy Development program's costs continues. Table 9 includes this estimated \$6.1 million gap in cost recovery as an annual, wholly dedicated subsidy to the export gas industry.

The Fracking Inquiry coincided with the beginning of a major increase in the budget of this program, as shown in Figure 8 below:

Figure 8: Energy Services/Energy Development budget



¹⁰² NT Government (2024) *Budget Paper 3*, p90

¹⁰³ NT Government (2024) *Budget Paper 3*, p90

Source: NT Budget papers, various years

The budget for Energy Development has tripled in recent years—with no justification given. Revenue from mines and energy processing fees (licences/titles), appears to have maintained at broadly similar levels, with just over \$1 million budgeted in 2024–25. Only a fraction of this revenue is likely to come from the gas industry; the majority is likely to come from the mining industry.

A separate item in the Department of Environment, Parks and Water Security budget is also titled “Hydraulic fracturing – regulation and assessment”. The \$1 million budget of this item has not been included in our analysis as it relates to industry regulation. It does, however, underscore the Fracking Inquiry’s finding that the administrative and regulatory costs of unconventional gas extraction in the NT are not being recovered from industry via fees and charges.

Victoria

Victoria's fossil fuel industry comprises predominantly brown coal mines and power stations in the Gippsland region, as well as offshore oil and gas production and exploration.

Victoria's fossil fuel subsidies have been focussed on controversial plans to convert brown coal into hydrogen for export to Japan, a process that would potentially involve carbon capture and storage. As of late 2024, these plans appeared to have stalled.

A summary of Victoria's fossil fuel subsidies can be found in Table 10.

Table 10: Victorian government 2024–25 fossil fuel subsidies

	2024–25 expenditure (\$)	Capital values/forward estimates (\$)
Wholly	17,750,000	28,500,000
Primarily	1,000,000	4,000,000
Partly	45,900,000	183,600,000
Total	64,650,000	216,100,000
Coal	17,750,000	28,500,000
Gas	-	-
Various	46,900,000	187,600,000
Total	64,650,000	216,100,000

Source: Victoria State Government (2025) Budget Papers 2024-25, Federal Financial Relations (2024)

Hydrogen Energy Supply Chain Preliminary Investment Plan, Federal Financial Relations (2023)

CarbonNet Stage 3

HYDROGEN ENERGY SUPPLY CHAIN

The Hydrogen Energy Supply Chain (HESC) Project aims to extract hydrogen from brown coal in the Latrobe Valley for export to Japan. The long-running pilot phase of the project was completed in early 2022 with the export by ship of a small quantity of hydrogen to Japan.¹⁰⁴ However, at the end of 2024, a major project participant, Kawasaki Heavy Industries,

¹⁰⁴ Australian Transport Safety Bureau (2023) *Electrical component failure leads to brief flame discharge from liquid hydrogen carrier's gas combustion unit vent stack*, <https://www.atsb.gov.au/media/news-items/2024/electrical-component-failure-leads-brief-flame-discharge-liquid-hydrogen-carriers-gas-combustion-unit-vent-stack>

announced that the next phase of the project would be conducted in Japan. This potentially represents an end to the project's existence in Victoria.¹⁰⁵

The project initially received an estimated total of \$496 million in funding from state, federal, and foreign sources. After the completion of the pilot phase, another Japanese project partner, Susio Energy, announced it was going to move to the “commercial demonstration” phase of the project.^{106,107} This would include a \$2.1 billion funding boost from the Japanese Government to support the project's continuation.

The HESC project has attracted \$15 million of federal and state funding spread out over 2023–24 and 2024–25.¹⁰⁸ The Victorian State Government contribution was \$7.5 million, with \$3.75 million in 2024–25.

CARBONNET

CarbonNet is a carbon capture and storage network project in Gippsland that plans to build a 100 km CO₂ pipeline from the Latrobe Valley to the Gippsland Basin.¹⁰⁹ CarbonNet is independent from the Hydrogen Energy Supply Chain Project, but the two are often conflated. The HESC website mentions CarbonNet as a “supporting organisation” and the state-federal funding agreement for CarbonNet states that it “aims to integrate multiple carbon dioxide (CO₂) capture projects in the Latrobe Valley, such as [the] Hydrogen Energy Supply (HESC) project”.^{110,111}

CarbonNet was established in 2010 as part of the Federal Government's Carbon Storage Taskforce and National Low Emissions Coal Initiative. This initiative identified the Gippsland Basin as the most appropriate choice for a long-term carbon storage project in Victoria. This decision was based on several technical factors, including the region's proximity to major coalfields, electricity generators, and industrial processors, along with its proximity to suitable offshore and onshore storage sites: “[Victoria's] largest sources of CO₂ are all

¹⁰⁵ Pope (2024) *Plan to turn Latrobe Valley's coal into hydrogen hits major roadblock*, ABC News, <https://www.abc.net.au/news/2024-12-10/coal-hydrogen-hesc-latrobe-valley-japan-kawasaki/104375024>

¹⁰⁶ CSIRO (2024) *Liquefied Hydrogen Supply Chain Commercial Demonstration Project*, <https://research.csiro.au/hyresource/liquefied-hydrogen-supply-chain-commercial-demonstration-project/>

¹⁰⁷ Hydrogen Energy Supply Chain Project (2024) *The world-first Hydrogen Energy Supply Chain (HESC) Project*, <https://www.hydrogenenergysupplychain.com/>

¹⁰⁸ Federal Financial Relations (2024) *Hydrogen Energy Supply Chain Preliminary Investment Plan*, <https://federalfinancialrelations.gov.au/agreements/hydrogen-energy-supply-chain-preliminary-investment-plan>

¹⁰⁹ Victoria State Government: Department of Jobs, Skills, Industry and Regions (DJSIR) (2023) *CarbonNet Project*, <https://djsir.vic.gov.au/carbonnet>

¹¹⁰ HESC (2024) *About the pilot*, <https://www.hydrogenenergysupplychain.com/about-the-pilot/>

¹¹¹ Federal Financial Relations (2023) *CarbonNet Stage 3*, <https://federalfinancialrelations.gov.au/agreements/carbonnet-stage-3>

located within a 15 km radius ... [the site] offers an opportunity for shared infrastructure and a multi-user CCS network”.¹¹²

CarbonNet claims that it will have the capacity to store six million tonnes (Mt) of CO₂ each year for 30 years.¹¹³ Even if this proves accurate, this figure represents a fraction of the emissions generated by Victoria’s three brown coal-fired power stations, Yallourn, Loy Lang A, and Loy Yang B. In 2021, these generators emitted a combined 39.9 Mt CO₂-equivalent, representing 50% of Victoria’s total greenhouse gas emissions.¹¹⁴

CarbonNet has remained non-operational for over a decade. In 2022, it was reported that Stage Three of the project had been completed following the drilling of an offshore appraisal well in 2019–20 at the Pelican site in Bass Strait. Stage Three is the Project Development and Commercial Establishment, and will end when a determination is made on its “Final Investment Decision”. No such decision appears imminent, given that a recent Federal Funding Agreement between the Victorian and Federal governments show that that Federal and State funding will continue to flow until 2025–26.¹¹⁵

This agreement shows \$47.1 million in Federal and State funding from 2022–23 to 2025–26. The Victorian State government contribution is \$27.1 million, with \$14 million in 2024–25.

LAND TAX EXEMPTION FOR MINING

In Victoria, owners of land used exclusively as a mine receive a tax exemption. The exemption covers all mining licences and any land in the Latrobe Valley covered by the *Electricity Industry (Residual Provisions) Act 1993*,¹¹⁶ which includes the state’s brown coal mines and power stations. This reduces government revenue and disincentivises the transition away from fossil fuel production. The land tax exemption for mining is therefore classified as primarily dedicated to fossil fuels and has been allocated \$1 million in the 2023–24 budget, with an additional \$3 million over the next three years.

¹¹² Global CCS Institute (2015) *The CarbonNet Project: A Historical Perspective*, p. 9, <https://www.globalccsinstitute.com/archive/hub/publications/155928/carbonnet-project-historical-perspective.pdf>

¹¹³ DJSIR (2024) *About the CarbonNet Project*

¹¹⁴ Victoria State Government: Energy, Environment and Climate Action (2021) *Victorian Greenhouse Gas Emissions Report*, p. 19, https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0036/687825/Victorian-Greenhouse-Gas-Emissions-Report-2021.pdf

¹¹⁵ Federal Financial Relations (2023) *CarbonNet Stage 3*, <https://federalfinancialrelations.gov.au/agreements/carbonnet-stage-3>

¹¹⁶ State Revenue Office (2023) *Land tax exemptions*, <https://www.sro.vic.gov.au/land-tax/land-tax-exemptions#mines>

RESOURCES OUTPUTS

“Resources Outputs” is part of the Victorian government’s Department of Jobs, Precincts and Regions. Resources Output is an ongoing program with \$45.9 million budgeted in 2024–25, a figure considered as being dedicated partly to fossil fuels.¹¹⁷

Most of the program’s funding (\$44.8 million of \$45.9 million) goes to two programs: the “Reform to Perform” initiative, which aims to support the resources sector in achieving net zero emissions, and the Big Build infrastructure program.¹¹⁸

Resources Outputs is likely to provide a small benefit to Victoria’s petroleum exploration activities. On issue are 11 onshore production licenses and nine exploration permits.¹¹⁹ Exploration activities continue in the offshore state waters of the Otway Basin¹²⁰ and the offshore federal waters of the Otway and Gippsland Basins.¹²¹

The program is also likely to provide considerable funding to non-fossil fuel areas. On balance, they have been excluded from the Victorian fossil fuel subsidies because the part going to fossil fuels was considered too small to justify their inclusion.

¹¹⁷ Victoria State Government (2024) *Budget Papers: Department Performance Statement*, p 33, <https://s3.ap-southeast-2.amazonaws.com/budgetfiles202425.budget.vic.gov.au/2024-25+Department+Performance+Statement.pdf>

¹¹⁸ D’Ambrosio (2024) *Public Accounts and Estimates Committee 2024-25 Budget Estimates Hearing 23 May 2024*, <https://www.parliament.vic.gov.au/49dfd6/contentassets/b687e013915e48e2b4fc89d8c0d13706/energy-and-resources.pdf>

¹¹⁹ Resources Victoria (2023) *Earth Resources Regulation Annual Statistical Report: FY 2022–23*, p. 30, https://resources.vic.gov.au/__data/assets/pdf_file/0012/996870/Earth-Resources-Regulation-Statistical-Report-2022-23.pdf

¹²⁰ Resources Victoria (2020) *Oil and gas acreage releases*, <https://resources.vic.gov.au/geology-exploration/oil-gas/oil-and-gas-acreage-releases>

¹²¹ Department of Industry (2022) *2022 offshore petroleum exploration acreage release | Department of Industry, Science and Resources*, <https://www.industry.gov.au/publications/2022-offshore-petroleum-exploration-acreage-release>

South Australia

South Australia has long been a leader in renewable energy generation and has a commitment to achieving 100% renewable electricity by 2030. In 2023, South Australia's share of renewable energy for electricity generation was 74%.¹²²

Despite the state's achievements with renewable energy, the oil and gas industry—and particularly Santos, the largest oil and gas company operating in SA—remains powerful. In 2023, Santos CEO Kevin Gallagher was named in The Adelaide Advertiser's annual Power Rankings feature as the most powerful person in South Australia.¹²³ (The Premier, Peter Malinauskas, came in third.) That year, SA hosted the national industry lobby group conference, at which Tom Koutsantonis, the state's Minister for Energy and Mining, told attendees that the "South Australian Government is at your disposal ... we are here to help, and we are here to offer you a pathway to the future."¹²⁴

Table 11: Government of South Australia 2024–25 fossil fuel subsidies

SA budget fossil fuel assistance	2024–25 expenditure (\$)	Capital values/forward estimates (\$)
Wholly	16,000,000	77,176,000
Primarily	-	-
Partly	20,760,000	20,780,000
Total	36,760,000	97,956,000
Coal	-	-
Gas/oil	36,760,000	97,956,000
Various	-	-
Total	36,760,000	97,956,000

Source: Government of South Australia (2024) *Budget Papers 2024–25*



¹²² Australian Government (2024) *Australian Energy Update 2024*, p37

<https://www.energy.gov.au/publications/australian-energy-update-2024>

¹²³ England, McGuire & Starick (2023) 'Power 50: South Australia's most influential people of 2023 ranked' *The Advertiser*, <https://www.adelaidenow.com.au/news/south-australia/power-50-adelaides-most-influential-people-of-2023-ranked/news-story/940b6525dc4695f3027d713e46d83d04#:~:text=The%20prospect%20of%20profound%20economic,Me ad%20into%20the%20top%2010>

¹²⁴ Kurmelovs (2023) *South Australia tells gas industry the state is 'at your disposal'*, The Guardian, https://www.theguardian.com/environment/2023/may/16/south-australia-gas-industry-appea-national-conference-2023?trk=public_post_comment-text

PORT BONYTHON

Jetty Refurbishment

Port Bonython is the site of a gas and diesel import and distribution hub. Its jetty is leased by the state to Santos, which uses it to export LPG, crude oil and naphtha. A refurbishment of this jetty refurbishment is expected to be completed in June 2026; government expenditure on the project in 2024–25 was \$16 million.¹²⁵

This project has suffered from delays and cost overruns. The original estimate of the project's cost was \$33 million, with completion scheduled for 2024.¹²⁶ Last year, with the project still incomplete, the estimated cost had risen to \$64 million, and the most recent estimate is \$77 million.

Hydrogen Hub

Port Bonython also features in South Australia's hydrogen export plans as part of the Clean Hydrogen Industrial Hub at Port Bonython.¹²⁷ This Hub falls under the jurisdiction of the Department of Energy and Mining's Office of Hydrogen Power South Australia. While the project is largely focused on renewable energy, fossil fuel-based hydrogen appears to be included, with the Department of Energy and Mining describing the Hub as "South Australia's first large-scale export terminal for green and blue hydrogen."¹²⁸

Development agreements have been negotiated with fossil gas companies Santos and Origin Energy, as well as green hydrogen-focussed companies.¹²⁹ The 2024–25 budget allocated \$20.76 million for the project, with the expected completion date of June 2026.¹³⁰

¹²⁵ Government of South Australia (2024) *Budget Statement: Budget Paper no. 3*, p 108

https://www.statebudget.sa.gov.au/__data/assets/pdf_file/0003/1014375/2024-25-Budget-Statement.pdf

¹²⁶ Government of South Australia (2022) *Works commence to secure long-term future of Port Bonython Jetty*, <https://dit.sa.gov.au/news?a=1111974>

¹²⁷ Government of South Australia (2024) *Budget Statement: Budget Paper no. 4.2*, p 117

https://www.statebudget.sa.gov.au/__data/assets/pdf_file/0017/1014371/2024-25-Agency-Statements-Volume-2.pdf

¹²⁸ Department of Energy and Mining (n.d.) Port Bonython export hub,

<https://www.energymining.sa.gov.au/industry/hydrogen-and-renewable-energy/hydrogen-in-south-australia/port-bonython-export-hub>

¹²⁹ Government of South Australia (n.d.) *Project partners*, <https://www.hydrogen.sa.gov.au/projects/port-bonython-hydrogen-hub/project-partners>

¹³⁰ Government of South Australia (2024) *Budget Statement: Budget Paper no. 4.2*, p 107

https://www.statebudget.sa.gov.au/__data/assets/pdf_file/0017/1014371/2024-25-Agency-Statements-Volume-2.pdf

It is still unclear the extent to which these initiatives will cross over with the South Australian Hydrogen Power Plant being built near Whyalla, which is being managed by the Office of Hydrogen Power South Australia.¹³¹ Also known as the Hydrogen Jobs Plan, this project has a budget of \$593 million, with \$389 million allocated for 2024–25.¹³² Although there is some discussion of hydrogen-fossil gas blending, most material in relation to the Hydrogen Power Plant specifies renewable hydrogen, so this expenditure is not included in our analysis. To be clear, this power plant could just as easily be run on hydrogen produced using fossil fuels or even on a blend of hydrogen and natural gas.

The 2024–25 budget also allocated \$5.8 million over two years and \$3.9 million in 2024–25 to deliver accommodation to the construction workforce used in the Hydrogen Jobs Plan.¹³³ This has not been included in our analysis for the same reasons as the Hydrogen Power Plant.

The Whyalla steelworks has recently gone into administration and the federal and state government have announced a \$2.4 billion support package. Before this the previous owner of the Whyalla steelworks, GFG Alliance, announced the purchase of an electric arc furnace, as part of a planned phasing out of coal-based steel making processes. The company also proposes to develop a direct reduction iron plant to process magnetite ore into low-carbon iron feed for the arc furnace. The South Australian Government had also signed an agreement with GFG Alliance to explore opportunities for renewable hydrogen offtake from the hydrogen facility.¹³⁴ The joint federal state support package is an excellent opportunity to implement a program for the production of green steel.

IMPLEMENTATION OF HYDROGEN AND RENEWABLE ENERGY ACT, 2023

The Department of Energy and Mining will implement the new Hydrogen and Renewable Energy Act 2023. The 2024–25 budget allocated \$4.1 million over four years for the implementation of the Act and development of associated regulations.¹³⁵ This is not

¹³¹ Government of South Australia (2023) *Hydrogen Jobs Plan*, <https://www.ohpsa.sa.gov.au/projects/hydrogen-jobs-plan>

¹³² Government of South Australia (2024) *Budget Statement: Budget Paper no. 3*, p 107 https://www.statebudget.sa.gov.au/__data/assets/pdf_file/0003/1014375/2024-25-Budget-Statement.pdf

¹³³ Government of South Australia (2024) *Budget Statement: Budget Paper no. 5* p29 https://www.statebudget.sa.gov.au/__data/assets/pdf_file/0020/1014374/2024-25-Budget-Measurement-Statement.pdf

¹³⁴ Government of South Australia (2024) *Budget Statement: Budget Paper no. 3*, p 101 https://www.statebudget.sa.gov.au/__data/assets/pdf_file/0003/1014375/2024-25-Budget-Statement.pdf

¹³⁵ Government of South Australia (2024) *Budget Statement: Budget Paper no. 5* p28 https://www.statebudget.sa.gov.au/__data/assets/pdf_file/0020/1014374/2024-25-Budget-Measurement-Statement.pdf

included in our analysis as appears that it is only going to support green hydrogen. However, it may subsidise fossil fuels in the future as the Act itself does not specify any particular types of hydrogen and does not mention 'green' or 'clean'.¹³⁶ This means the Act is applicable to all forms of hydrogen, including those associated with fossil fuels.

¹³⁶ *Hydrogen and Renewable Energy Act 2023* (SA),
https://www.legislation.sa.gov.au/lz/path=/v/a/2023/hydrogen%20and%20renewable%20energy%20act%202023_37

New South Wales

New South Wales (NSW) is a major coal mining jurisdiction, with 40 operating coal mines producing 221 million tonnes of raw coal per year.¹³⁷ The state is not currently a significant gas producer, but the controversial Narrabri Gas Project could significantly increase production.

In 2024–25, the NSW government spent approximately \$10.3 million on fossil fuel subsidies, with total forward budgeted assistance estimated at \$492.4 million, as showed in Table 12 below.

Table 12: NSW government 2024–25 fossil fuel subsidies

NSW budget fossil fuel assistance	2024–25 Expenditure (\$)	Capital value/forward estimates (\$)
Coal	3,419,000	479,116,000
Gas	1,569,000	1,569,000
Various	5,309,000	11,700,000
Total	10,297,000	492,385,000
Wholly	3,971,000	476,385,000
Primarily	-	-
Partly	6,326,000	15,768,000
Total	10,297,000	492,385,000

Source: NSW Government (2024) *Budget Papers*

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The estimate of fossil fuel subsidies for 2024–25 in Table 12 is a decrease from \$60 million budgeted in 2023–24. The biggest contribution to this drop was spending from the Coal Innovation Fund and the Minerals and petroleum Investment Fund. The total value of projects and forward estimates has increased from \$103 million in 2023–24 to \$492 million in 2024–25. This was primarily driven by the NSW Government’s agreement with Origin Energy to keep the Eraring Power Station open for another two years.

ERARING POWER STATION

The Eraring Power Station, owned by Origin Energy, is the largest coal fired power station in the country. It was originally set to close in 2025 but will now close in August 2027 because

¹³⁷ Coal Services (2024) *Statistics*, <https://www.coalservices.com.au/>

of a new agreement with the NSW Government.¹³⁸ While the NSW Government claims that the agreement is necessary for energy security, it has been widely seen as unnecessary and a delay of energy transition.

In order to ensure the continued operation of the Eraring power station, the NSW Government has agreed to underwrite operating losses up to a value of \$450 million over the period 2025-26 and 2026-27. Up to 80% of any operating losses—capped at \$225 million each year— would be covered by the public. Conversely, if the power station operates profitably in either year and Origin has agreed to be covered by the agreement, the Government gets a share of profits, capped at \$40 million.

Origin decides by March 31 each year whether to be covered by this agreement.

No value has been included for this subsidy in the 2024–25 year. Over the longer term, the maximum liability of \$450 million has been allocated to Capital value/forward estimates, categorised as wholly dedicated to the coal industry. The maximum value has been used here to reflect the degree to which the NSW Government is prepared to subsidise fossil fuel use in the future, even though the final value is uncertain. This will be revised in future editions of this report.

DEPARTMENT OF REGIONAL NSW

The Department of Regional NSW (DRNSW) oversees various programs and functions that benefit the state’s fossil fuel industry:

- DRNSW’s Mining, Exploration and Geoscience (MEG) program aims to “support and grow safe and sustainable exploration and mining in NSW” and “support the responsible development of mineral and petroleum resources”.¹³⁹ The MEG program is also responsible for the Minerals and Petroleum Investment Fund, which can fund “any authorised investment program” in order to “promote investment in State minerals or petroleum (or both)”.¹⁴⁰ In 2024, this fund spent a total \$5.309 million

¹³⁸ NSW Government (2024) *NSW Government secures 2-year extension to Eraring Power Station to manage reliability and price risks*, <https://www2.environment.nsw.gov.au/news/nsw-government-secures-2-year-extension-to-eraring-power-station>

¹³⁹ The NSW Government (2024) *Department of Regional NSW Annual Report 2023-2024*, p 19, <https://www.nsw.gov.au/sites/default/files/noindex/2024-11/Department-of-Regional-NSW-Annual-Report-2023-2024.pdf>

¹⁴⁰ The NSW Government (2024) *Department of Regional NSW Annual Report 2023-2024*, Appendix 1 p 19, <https://www.nsw.gov.au/sites/default/files/noindex/2024-11/Department-of-Regional-NSW-Annual-Report-2023-2024.pdf>

with a closing balance of \$11.7 million.¹⁴¹ This is categorised as partly assisting the fossil fuel industry.

- MEG is also responsible for the Minerals and Petroleum Administration Fund that spent \$1 million on the rehabilitation of legacy mines. This includes coal mines and has been classified as partly assisting the coal industry.

COAL INNOVATION NSW

The NSW Coal Innovation Fund's purpose is "to provide funding for research into, and development of, low emissions coal technologies, low emissions coal technology demonstration projects, increasing public awareness and acceptance of the importance of reducing greenhouse gas emissions through the use of low emissions coal technologies, and commercialisation of low emissions coal technologies".¹⁴² This fund spent \$2.4 million in 2023–24 (the most recent data available) and had a closing balance of \$25.1 million.¹⁴³ This fund is considered wholly attributable to the coal industry.

OTHER DEPARTMENTS

Property and Development NSW (PDNSW) is leading and managing the remediation of contaminated properties on the former Waratah Gasworks site in Newcastle. The budget for this item in 2024–25 is \$1.569 million.¹⁴⁴ Although the contamination of this site by the coal gasification industry occurred between 1889 and 1926,¹⁴⁵ the NSW Government continues to spend money on remediation. This is an example of how the public can subsidise fossil fuel industries through degraded environments and clean-up costs decades after projects have ceased operations.

¹⁴¹ The NSW Government (2024) *Department of Regional NSW Annual Report 2023-2024*, p 42, <https://www.nsw.gov.au/sites/default/files/noindex/2024-11/Department-of-Regional-NSW-Annual-Report-2023-2024.pdf>

¹⁴² The NSW Government (2024) *Coal Innovation Fund annual report 2023-24*, p 9, <https://www.parliament.nsw.gov.au/tp/files/190149/Attachment%20A%20-%20Coal%20Innovation%20NSW%20Annual%20Report%20FY2023-24.PDF>

¹⁴³ The NSW Government (2024) *Coal Innovation Fund annual report 2023-24*, p 16, <https://www.parliament.nsw.gov.au/tp/files/190149/Attachment%20A%20-%20Coal%20Innovation%20NSW%20Annual%20Report%20FY2023-24.PDF>. There is a \$17 million transfer to the NSW government which is described (on p 20) as "Return of ConFund per Treasury and Revenue Legislation Amendment Act 2023". This has been excluded.

¹⁴⁴ The NSW Government (2024) *NSW Budget 2024-25 Budget Paper No.03 Infrastructure Statement*, p 4-46, <https://www.budget.nsw.gov.au/sites/default/files/2024-06/Budget-Paper-No-3-Infrastructure-Statement-2024-25.pdf>

¹⁴⁵ NSW Government (2023) *Waratah Gasworks site remediation*, <https://www.dpie.nsw.gov.au/housing-and-property/our-business/environmental-service-group/waratah-gasworks-site-remediation>

Tasmania

The Tasmanian state budget does not include any clear subsidy to fossil fuel production or use. This is not unexpected, given that the state reached 100% renewable net electricity generation in 2020,¹⁴⁶ and has a legislated target to generate 200% of 2022 electricity consumption by 2040.¹⁴⁷ These achievements are enabled by Tasmania's long-established, and often controversial, hydroelectricity scheme, and more recent contributions from onshore wind farms.

Tasmania does produce and use some fossil fuels.¹⁴⁸ The gas-fired Tamar Valley Power Station contributed 4.8% of Tasmanian power generated in 2023–24, up from 0.6% in 2022–23.¹⁴⁹ The significant increase was due to low inflows to Hydro Tasmania catchments. Tasmania is also connected to the National Electricity Market via the Basslink interconnector, which facilitates the import of fossil fuel-generated electricity. Fossil fuels are also the primary source of energy for transport, agriculture and mining sectors in Tasmania.¹⁵⁰

Resources Policy and Regulatory Services

The only potential fossil fuel subsidy in the Tasmanian Budget is the funding allocated to Resources Policy and Regulatory services Output Group 4.2., Mineral Resources, which “facilitates mineral exploration and mining development and fosters and encourages responsible land management in Tasmania... [and improves] the quality and quantity of geoscience information, essential to the encouragement of mineral exploration”.¹⁵¹ Mineral Resources was allocated \$11.3 million in 2024–25, and \$40 million over 4 years.¹⁵² Ores and concentrates (such as copper, zinc, tin and tungsten) make up the majority of Tasmania's mining production and the entirety of the state's mineral exports.

¹⁴⁶ Renewables, Climate and Future Industries (n.d.) *100% target achievement*, https://recfit.tas.gov.au/renewables/100_target_achievement

¹⁴⁷ *Energy Co-ordination and Planning Act 1995*, Part 1A, s 3C, 2 (b).

¹⁴⁸ Department of Climate Change, Energy, the Environment and Water (2024) *Australian Energy Update 2024*, <https://www.energy.gov.au/publications/australian-energy-update-2024>, p 24.

¹⁴⁹ Tasmanian Economic Regulator (2024) *Energy in Tasmania: Annual Security Review 2023-24 Water Year*, p10, <https://www.economicregulator.tas.gov.au/about-us/energy-security-monitor-and-assessor/annual-energy-security-review>.

¹⁵⁰ Department of Climate Change, Energy, the Environment and Water (2024) *Australian Energy Update 2024: Table F: Australian energy consumption, by state and territory, by industry and by fuel, energy units*, <https://www.energy.gov.au/publications/australian-energy-update-2024>

¹⁵¹ Tasmanian Government (2024) *Budget Paper 2, Volume 1*, <https://www.treasury.tas.gov.au/Documents/2024-25-Budget-Paper-No-2-Volume-1.pdf>, p 342.

¹⁵² *Ibid*, p 334.

Coal mining in a net zero state

Tasmania has one active coal mining enterprise, Cornwall Coal Company Pty Ltd., which operates in the state's north-east.¹⁵³ Cornwall Coal Company is a subsidiary of Cement Australia, and supplies coal to industrial consumers within Tasmania, such as Cement Australia's Railton plant, and the Norske Skog paper mill. In 2022, Cornwall Coal sought to develop a new open cut pit at the Cullenswood Mine which would extract up to 50,000 tonnes of raw coal per annum over a predicted three-year lifespan.¹⁵⁴ The proposed project was referred for EPBC Act approval in November 2022, but has not progressed beyond the referral decision stage at present.¹⁵⁵

¹⁵³ Barnes and McCoull (2022) *The Cornwall Coal Company Pty Ltd, Blackwood 1 Redevelopment, Blackwood Colliery, Cornwall Project Description*, <https://epa.tas.gov.au/Documents/The%20Cornwall%20Coal%20Company%20Pty%20Ltd%2c%20Blackwood%20%20Redevelopment%2c%20Blackwood%20Colliery%2c%20Cornwall%20-%20Project%20Description.pdf>

¹⁵⁴ Ibid, p 2.

¹⁵⁵ EPBC Act Public Portal (2023) *Cullenswood Mine development of open cut coal pit No.6*, https://epbcpublicportal.awe.gov.au/all-referrals/project-referral-summary/project-decision/?id=a4b1598d-fb8a-ed11-81ad-00224818a80f&refentity=incident&refid=23a8e3a9-d65f-ed11-9561-00224814a07b&refrel=mara_projectdecision_project_Incident, p 1.

Australian Capital Territory

The ACT does not produce any coal, gas or oil, nor is it home to any major consumers of fossil fuel. Its 2024–25 budget does not contain any measures that could be considered fossil fuel subsidies. That budget contains ambitious targets for transitioning away from dependence on fossil fuels, with a view to achieve net zero-emissions by 2045.¹⁵⁶

Because the ACT government has contracted renewable generation equivalent to the Territory's electricity consumption, the ACT's electricity system has been described as 100% renewable since 2019.¹⁵⁷ The government further aims to phase out gas in favour of electrification by 2045 at the latest.¹⁵⁸

The 2024–25 ACT budget will spend \$190 million on a range of new measures that aim to further reduce emissions with a focus on reducing gas consumption.¹⁵⁹ These include:

- Continuing the Sustainable Household Scheme helping ACT residents to electrify their homes;
- Continuing the Vulnerable Household Energy Support Scheme providing ceiling insulation and electrification to public housing and vulnerable households;
- Increasing subsidies for the development of skills to support the ACT's energy transition;
- A new pilot Community Partnership Electrification Program which provides grant payments for electrification upgrades to up to 350 eligible households and;
- Further projects to replace gas assets with electric technology in Government-owned buildings.

¹⁵⁶ ACT Government (2024) *Budget Outlook*, p 72,

https://www.treasury.act.gov.au/__data/assets/pdf_file/0007/2244436/Budget-Outlook.pdf

¹⁵⁷ See for discussion of the ACT's electricity policy and 100% target see Cass (2019) *Class ACT: How the Australian Capital Territory became a global energy leader*, <https://australiainstitute.org.au/report/class-act-how-the-australian-capital-territory-became-a-global-energy-leader/> and Evans (2019) *ACT has '100 per cent renewable' electricity from today. But what does that mean?*, <https://www.abc.net.au/news/2019-10-01/act-is-100-per-cent-renewable-but-what-does-that-mean/11560356>

¹⁵⁸ ACT Government (2023) *Canberra's plan to transition*, <https://energy.act.gov.au/>

¹⁵⁹ ACT Government (2024) *Budget Outlook*, p 72

Conclusion

The 2020s have often been described as a critical decade for phasing out fossil fuels, yet Australia continues to subsidise them, imposing costs not only on the budget but on the climate.

This report was finalised as Cyclone Alfred was receding and the clean-up beginning in Brisbane and other affected areas. The cost of the damage incurred is still unknown, to the extent that dollar figures can be estimated.

Such costs are almost certain to increase in the future as fossil fuel-driven climate change exacerbates the impacts of natural disasters. The redirection of harmful fossil fuel subsidies to assist with preparing for and recovering from such disasters seems obvious to everyone except Australian governments. The imminent Australian federal election and subsequent state elections represent chances to change this.

Cover sheet: Supporting document #3

Fuelling budget repair

How to reform fuel taxes for business

Marion Terrill, Ingrid Burfurd, and Natasha Bradshaw

February 2023



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Overview

Fuel tax credits are worth \$8 billion a year to the businesses that receive them, but only about half that outlay is justified in economic or social terms. Fuel tax credits are gnawing away an ever-growing share of fuel tax revenue: a decade ago, credits reduced gross fuel tax revenue by 30 per cent; today, it's almost 40 per cent. Winding back the credits could reduce the structural budget deficit by about 10 per cent, or \$4 billion a year.

Fuel tax is imposed at a current rate of 47.7 cents per litre – but not all fuel use attracts the charge. No fuel tax is payable for vehicles that only drive off-road, such as trucks on mine-sites, or for other off-road uses such as in heavy machinery, and for heating and cooling. And a reduced rate of fuel tax is payable for on-road vehicles heavier than 4.5 tonnes, such as semi-trailers, B-doubles, and passenger buses.

The mechanism for refunding the fuel tax paid at the bowser is fuel tax credits. Companies claim credits at either a full or partial rate, currently 20.5 cents per litre.

Fuel tax credits were introduced 40 years ago, but the more favourable deal for bigger on-road vehicles has only been in place since 1999. There is no business reason why larger vehicles should pay less than smaller vehicles – in fact quite the reverse, since heavy vehicles do far more damage to road surfaces.

The usual tax-policy orthodoxy is that governments should not tax business inputs, to avoid skewing business decisions about what goods and services to produce and with what inputs. Important as these arguments are, they don't hold when the input itself causes harm. And that's the situation with burning diesel.

Burning diesel contributes about 17 per cent of Australia's total carbon emissions. Using a conservative international benchmark price of \$75 per tonne of carbon emitted, this harm can be expressed in monetary terms as 20 cents per litre of diesel.

Politicians promote fuel tax credits as a way to help regional Australia. For now, credits support Australian exporters, particularly miners and farmers. But this advantage has a use-by date, because Europe, the UK, the US, and Canada are imposing or planning to impose levies on specific imported products to reflect the carbon taxes that would have been paid had the goods been produced domestically (known as Carbon Border Adjustment Mechanisms).

This report calls for an overhaul of fuel taxes in Australia. On-road heavy vehicles should pay the same rate as utes, vans, cars, and small trucks used by Australian businesses. Off-road vehicles and machinery should still be eligible for fuel tax credits, but at a lower rate than at present, to reflect the carbon emissions and other damage they cause to the community as a whole.

The impact on households would be extremely small: prices at the supermarket would increase by an average of about 0.35 of 1 per cent – or 35 cents on a \$100 grocery shop.

These reforms would improve the efficiency of the tax system, contribute to budget repair, and help Australia hit its target of net-zero emissions by 2050.

Recommendations

1. Fuel tax credits should be removed for heavy on-road vehicles, increasing the effective fuel tax rate to 47.7 cents per litre, indexed to CPI.
2. Fuel used off-road should receive a reduced credit of 25.6 cents per litre, increasing the effective fuel tax rate to 22.1 cents per litre, indexed to CPI.
3. The on-road fuel tax rate should apply to all fuel used on-road, including fuel used for powering auxiliary equipment.

1 Reducing fuel tax credits would contribute to budget repair

It's hard to find a hollow log in Canberra, but one exception is fuel tax credits.

Fuel tax credits cost the budget close to \$8 billion a year,¹ about half of which is poorly justified in economic or social terms. This report proposes a way to save about \$4 billion per year from fuel tax credits.

An overhaul of fuel tax credits would not only make a meaningful dent in the structural deficit, but also help end a longstanding failure to properly account for the carbon emissions and air pollution caused by burning diesel.

And the impacts on the cost of living for Australian households would be very small.

1.1 The federal budget is in structural deficit

The federal budget has a structural deficit of about 2 per cent of GDP. It's forecast to stay at that level for the next decade. After stripping out the effect of temporary factors such as high commodity prices, there remains a stubborn shortfall of about \$40 billion a year.²

Government debt has shot up, from nothing before the Global Financial Crisis to 23 per cent of GDP in 2021-22.³ Interest payments on that debt are the fastest growing payment in the budget, at 14.4 per cent on average per year, outstripping even growth in the National Disability Insurance Scheme.⁴

1. Commonwealth of Australia (2022, p. 196).

2. Ibid (pp. 6, 117–118).

3. Ibid (pp. 380–381).

4. Ibid (p. 87).

The consequence of the structural deficit is that the task of finding structural savings is urgent.

1.2 Reforming fuel tax credits could make a serious dent in the structural deficit

Fuel tax credits are the mechanism that permits heavy vehicle operators and other users of petroleum products to receive a full or partial refund of any fuel tax they pay (see Box 1 on the following page). While the gross fuel tax raises more than \$20 billion a year, fuel tax credits reduce this by close to \$8 billion.⁵

Fuel tax credits are gnawing away more and more of the revenue from fuel tax. A decade ago, credits reduced gross fuel tax revenue by 30 per cent; today, it's almost 40 per cent (Figure 1.2 on page 8).

This report argues that about half of the cost to government of fuel tax credits is poorly justified, and should be cut. We build a case for a conservative tax reform where fuel tax credits are:

- Removed entirely for users of on-road vehicles heavier than 4.5 tonnes, increasing their fuel tax rate by 20.5 cents per litre in 2023; and
- Approximately halved for off-road users of diesel and other fuels, increasing their fuel tax rate by 22.1 cents per litre in 2023 (Figure 1.2).

The savings from our proposal would amount to about \$4 billion a year – about 10 per cent of the structural budget deficit.

5. Ibid (pp. 164, 180).

Box 1: How fuel tax credits work

Fuel tax is an excise (for domestically produced fuels) and customs duty (for imports), imposed at a rate of 47.7 cents per litre on diesel, petrol, condensate, kerosene, heating oil, and other petroleum products, indexed twice a year by the Consumer Price Index (CPI).^a

But not all fuel use attracts the tax. No fuel tax is payable for vehicles that only drive off-road, such as trucks on mine-sites, or for other off-road uses such as in heavy machinery, and for heating and cooling. And a reduced rate of tax is payable for on-road vehicles heavier than 4.5 tonnes, such as semi-trailers, B-doubles, and passenger buses.^b

Fuel tax credits are the mechanism for refunding fuel tax paid at the bowser. Companies claim full or partial credits on their regular Business Activity Statement to the Australian Taxation Office. The partial credit rate is currently 20.5 cents per litre – the difference between the fuel tax rate of 47.7 cents and the heavy vehicle Road User Charge (RUC), currently 27.2 cents per litre.^c

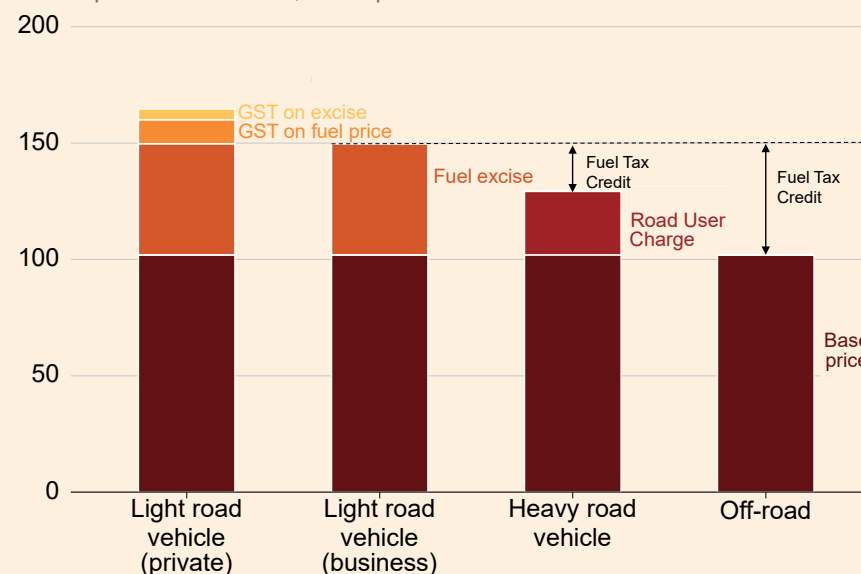
The RUC is intended to cover public spending on roads that can be attributed to heavy vehicles. The rate is reviewed annually by the federal, state, and territory infrastructure and transport ministers, under the auspices of National Cabinet, with the final decision resting with the federal minister.^d

Private drivers pay the full rate of fuel tax, plus GST on both the fuel itself and the fuel tax. Business operators whose vehicles are smaller than 4.5 tonnes pay the full rate, but they do not pay GST on the fuel or the tax, and can deduct the cost of fuel plus fuel tax from their business income.^e

- a. *Excise Tariff Act 1921*. Fuel tax is also imposed at lower rates on several other fuels, including aviation fuel, liquefied petroleum gas, and biodiesel.
- b. *Fuel Tax Act 2006*.
- c. ATO (2021a). The credit is a refundable tax offset, treated as an expense in the budget.
- d. National Transport Commission (2022a, pp. 6–7).
- e. Parliamentary Budget Office (2022, p. 11).

Figure 1.1: How fuel tax works

Diesel price and taxation, cents per litre



Notes: Diesel price as at December quarter 2021. Heavy road vehicles are those weighing more than 4.5 tonnes.

Sources: Department of Climate Change, Energy, the Environment and Water 2022; ATO 2021a; Fuel Tax Act 2006.

Savings of this order naturally cause some disruption in the economy. However, this proposed tax reform would support the government's commitment to achieve net-zero carbon emissions by 2050; would have only a very small impact on the cost of living; and would be entirely consistent with the long history of fuel tax credits being modified to suit the imperatives of the day.

1.3 A forward-looking policy that would support the government's net-zero commitment

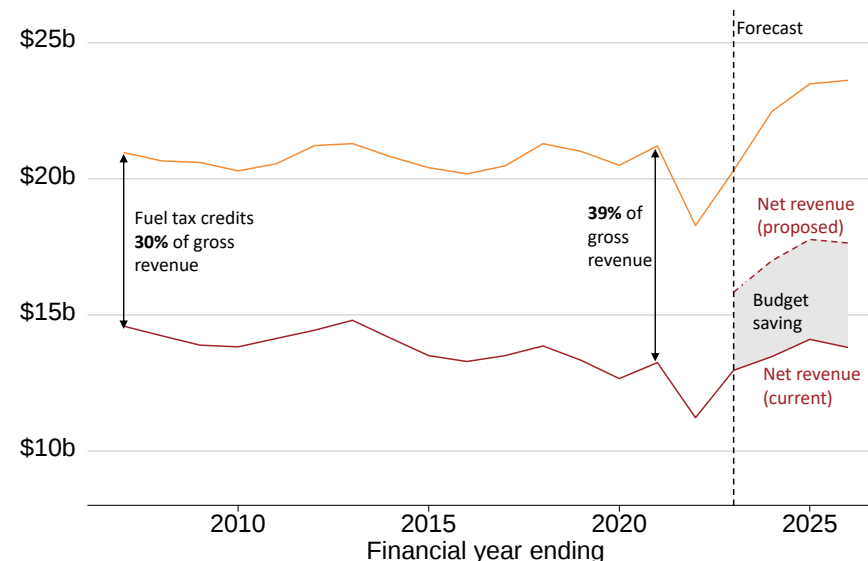
Although our policy proposal would yield substantial savings, it is not a simple revenue grab. Rather, it is a genuine reform that would help end a longstanding policy failure to properly account for the costs to the community of the carbon emissions and air pollution caused by burning diesel.

The federal government has committed to achieving net-zero carbon emissions by 2050.⁶ To do so in the absence of an economy-wide carbon price, it will need policies that tackle the highest-emitting sectors. Of a total of 19 industries in Australia, the five that receive most of the value of fuel tax credits are collectively responsible for more than half of Australia's emissions (Figure 2.1 on page 14).

It is unlikely that diesel and other fuel users will achieve zero carbon emissions by 2050.⁷ Only 0.03 per cent of the heavy vehicle fleet is electric or hybrid at present,⁸ and previous Grattan Institute analysis indicates that an ambitious but achievable goal would be for 100 per cent of new rigid truck sales and 70 per cent of new articulated truck sales to be electric by 2040.⁹ And the problem does not end with

Figure 1.2: Grattan Institute's proposed reduction in fuel tax credits could save \$4 billion per year

Gross and net fuel tax revenue, 2007 to 2026



Notes: 2021-22 dollars. See Appendix B for further detail on budget savings estimates. Savings in nominal terms are \$15.4 billion over the four years to the 2025-26 financial year. Y-axis does not start at 0.

Sources: Commonwealth of Australia 2022; ATO 2019; National Transport Commission 2021; ATO 2021b; ABS 2022a.

6. United Nations (2022).

7. Diesel users claim about 80 per cent of the value of fuel tax credits: ABS (2017), Commonwealth of Australia (2022) and ABS (2020).

8. National Transport Commission (2021, p. 68).

9. Terrill et al (2022, p. 44).

trucks, because specialised off-road vehicles and machinery also need to decarbonise.

There are at present limited price or other signals to encourage users of diesel and other fuels to take into account the carbon emissions from their fuel use in their business decision-making. Scaling back current fuel tax credits would be a modest but meaningful step in this direction.

As well as carbon emissions, exhaust-pipe pollution has also been the subject of a longstanding failure to act. Australia introduced the Euro-V pollution standard for trucks in 2011, at a time when Japan, the UK, and Europe were already moving to Euro-VI standards. This is a problem because trucks are a major source of harmful air pollution, which causes respiratory and other illnesses, impairs cognitive function, and kills at least 400 Australians per year.¹⁰

The federal government announced in October 2022 that Australia will move to the Euro-VI standard for new truck sales from 2024.¹¹ Scaling back fuel tax credits would build on this initiative, by nudging heavy vehicle operators towards more-efficient and less-polluting vehicles.

Chapter 2 shows that this tax reform would be efficient, equitable, and simple.

1.4 Cost-of-living impacts would be very small

Cost-of-living pressures are front of mind for Australian governments, with inflation now rising more than twice as fast as wages.¹²

Our proposed reform to fuel tax credits would have only an extremely small impact on the cost of living. The average increase in the price

of goods at the supermarket would be about 0.35 of 1 per cent, or 35 cents extra for a \$100 grocery shop.

When taken across the economy, the average impact on households would be very small – about 0.1 of 1 per cent – across the goods and services consumed by households. It would not directly affect petrol for private use, or housing costs.

Because the impacts on households would be very small, there is no compelling reason for government to compensate households, and to do so could be counter to its goal of constraining inflation.

Chapter 3 explains in more detail the very small impacts on households and businesses.

1.5 Successive policy decisions have hastened the decline in fuel tax revenue

At some point, fuel tax revenue will probably dwindle away completely. This is due in part to greater fuel efficiency of vehicles and other machinery.¹³ Greater fuel efficiency benefits operators, because more efficient vehicles and machinery are cheaper to run, but it also means that about 3 per cent of the federal government's revenues today are set to wither away.

But fuel efficiency is only part of the story. The decline in fuel tax revenue is in large part a direct result of four key policy decisions over the past 25 years (Figure 1.3 on the next page).

One of these policy decisions was to cut the fuel tax rate by 1.5 cents per litre from March 2001. Another was to stop indexing the rate from 2001-02 until 2014-15. These decisions were taken as part of the introduction of the GST. In combination, these decisions have significantly reduced the real rate of fuel tax: the ongoing cumulative

10. Ibid (pp. 13, 25).

11. King and Bowen (2022).

12. ABS (2022a) and ABS (2022b).

13. Reedman and Graham (2015) and Dosser (2016).

impact of the indexation pause is of about the same magnitude as the six-month halving of the fuel tax rate between March and September 2022.¹⁴

The other two policy decisions were to extend eligibility for fuel tax credits to a wider range of fuel uses.

In 1999-2000, the Howard Government extended fuel tax credits to marine and rail use, and to on-road vehicles heavier than 20 tonnes and to on-road vehicles between 4.5 and 20 tonnes, provided that the start or end point of their journey was non-metropolitan.¹⁵ The extensions introduced in 1999-2000 persist to this day.

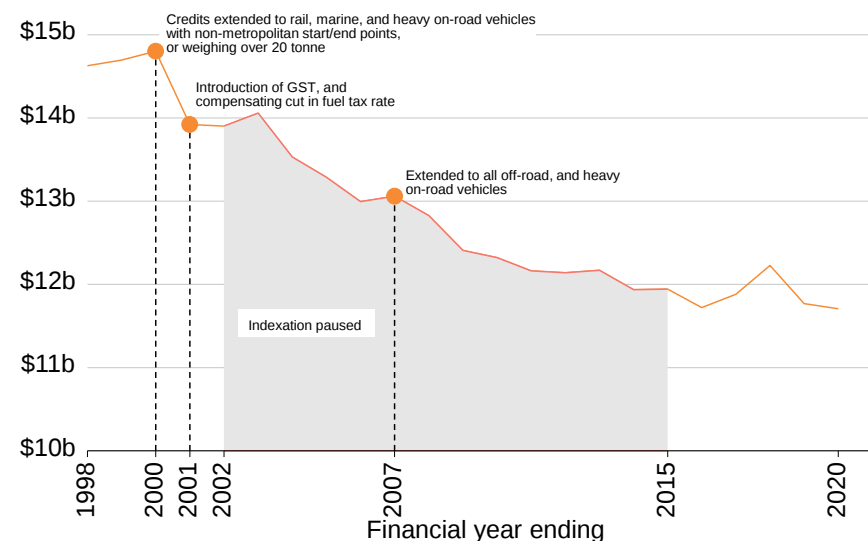
In 2006-07, the Howard Government extended fuel tax credits even further. The on-road use was opened up substantially, by removing the restriction that the journey had to begin or end in a non-metropolitan area. As well, the scheme opened up to other off-road use, including manufacturing and construction. These extensions also persist to this day.¹⁶

The decisions to shift the goals of the policy have caused confusion. As early as 1991, the Australian National Audit Office recommended that the credit scheme ‘clarify its purpose and objectives’.¹⁷

In 1994, the Department of Industry, Science, and Technology said the ‘objectives of the scheme are blurred’, while Treasury commented that it ‘does not appear to be a logically targeted spending program’.¹⁸

In 1996, an Auditor-General report argued that the the difficulty in administering the scheme was in part due to a ‘lack of clear

Figure 1.3: Four key policy decisions have caused much of the decline in fuel tax revenue



Notes: 2019-20 dollars. Heavy vehicles are those that weigh more than 4.5 tonnes. Road-related revenue only. Y-axis does not start at 0.

Sources: BITRE 2021a; Webb 2002a; Webb 2002b; Parliamentary Budget Office 2022; and Fuel Tax Act 2006.

14. Parliamentary Budget Office (2022, p. 13).

15. Pule and Webb (1999).

16. Fuel Tax Act 2006.

17. Australian National Audit Office and Spedding (1995, p. 11).

18. Ibid (p. 13).

objectives'.¹⁹ And in 2002, the Fuel Tax Inquiry noted that the widely differing views on the purpose of fuel tax can be attributed to changing objectives over time, in combination with a failure on the part of government to explain when and why those objectives had changed.²⁰

The reality is that the fuel tax credit scheme has every appearance of a political gift to rural and regional Australia. The scheme is not well suited to the policy imperatives facing the federal government today: tackling the structural budget deficit, and hitting net-zero carbon emissions by 2050.

19. Ibid (p. xii).

20. Trebeck et al (2002, p. 11).

2 Reducing fuel tax credits is good tax policy

Taxes usually come with economic costs, creating a trade-off for government between raising revenue and maximising economic output.

But the current fuel tax and credit system is riddled with baseless carve-outs and does not account for many of the costs of using fuel. There is no rationale for the favourable treatment that heavy business vehicles receive over lighter ones, especially given that heavy vehicles do far more damage to our roads. And the price businesses pay for fuel does not account for the substantial damage that burning diesel does to the environment and our health.

The federal government therefore has a rare opportunity to deliver genuine efficiency-improving tax reform while simultaneously raising revenue to reduce the budget deficit.

Our proposed rates of fuel taxation for business do not exceed conservative estimates of the external costs of fuel use. This ensures the tax rate we propose would be fair both to businesses and the community at large.

2.1 Business inputs should not usually be taxed

Tax orthodoxy tells us we shouldn't tax business inputs,²¹ for two main reasons.

First, governments try to raise revenue in ways that minimise the impact on what we buy and how businesses produce their goods and services. Taxing consumers influences what people buy, while taxing business inputs can influence both what people buy and also how businesses produce those goods and services.

21. There is a gap between this principle and usual practice. For example, the single largest input for many businesses – labour – is taxed.

But there is a strong case to tax business inputs when the use of that input causes harm to others.

The second reason tax orthodoxy tells us not to tax business inputs is the argument that taxes should not be imposed on both businesses and consumers, because they end up being 'double taxed'.²² This principle was a key consideration in the development of the GST. But fuel tax is very different to the GST.

GST is a broad-based tax on final consumption. If businesses were required to pay GST on their production inputs, it would be charged multiple times. For example, if the wholesaler, retailer, and final consumer of a good were all required to pay GST, it would be paid three times over. To avoid this scenario, businesses do not have to pay GST on their inputs, only on the value they add to those inputs.²³

Excise and customs taxes, such as fuel tax, operate quite differently. Fuel tax is paid by importers or producers of fuel at the point it leaves their refinery, terminal, or storage depot, and is not charged again.²⁴ This means there is no risk of fuel being taxed multiple times. Businesses that use fuel can also also claim a tax deduction on any fuel-related costs, including fuel tax (see Box 2 on the following page for an example).

The rest of this chapter argues the case for scaling back fuel tax credits, and by how much. The key argument is that burning fuels causes harm to the community above and beyond what is currently captured through fuel taxes. This argument is explained in Section 2.2,

22. The Fuel Tax Credit Alliance (2017) and Deloitte Access Economics (2014, pp. 7–9).

23. ATO (2022a).

24. Parliamentary Budget Office (2022, pp. 1–2).

with a proposal for a reformed fuel tax credit that would capture these harms.

Further arguments in favour of our proposal are that it would be fairer for business operators of on-road vehicles to face the same fuel tax regime, regardless of the size of their vehicles, outlined in Section 2.3, and that our proposal would simplify the fuel tax system for business and government, explained in Section 2.4.

2.2 ... but taxing a business input is sensible in this case

While taxing a business input such as fuel would typically be considered inefficient, there are exceptions. There is a strong case to tax goods or activities that cause harm to others. We all hate dodging potholes on damaged roads, squeezing our cars between trucks on the freeway, or being late to work because we're stuck in traffic. And there are other, bigger costs of fuel use: carbon emissions and air pollution. These costs, or 'externalities', are imposed on all of us by users of fuel, but the price paid for fuel by many businesses does not reflect this.

We would all be better off if businesses paid a price for fuel that reflected both the market cost of fuel and the also costs imposed on others from their fuel use.

An increase in the price of fuel may encourage businesses to find ways to reduce their use of fuel, reducing the harm they impose on others. Alternatively, if businesses continue to use large amounts of fuel, the government will receive increased revenue from the fuel tax.

We should, however, be careful not to overreach. Imposing a tax on fuel users that exceeded the externality costs of using fuel would have economic costs. The following sections outline conservative estimates of the social and economic costs of burning fuel.

Box 2: Businesses can tax-deduct their fuel expenses

When the cost of a business input such as fuel increases, the amount businesses can claim in tax deductions also increases.

Let's take the example of a small transport business, 'Liz's Trucks'. Liz owns one 7-tonne truck and uses 10,000 litres of diesel per year on-road.

Fuel costs under current arrangements

If fuel costs an average of \$1 per litre, Liz would pay \$1.477 per litre at the bowser, and claim back 20.5 cents per litre in fuel tax credits on her Business Activity Statement. This would bring the actual fuel price to \$1.272 per litre, so 10,000 litres will cost her \$12,720.

Liz then files her tax return and claims a tax deduction for the fuel she used in her business. She pays a company tax rate of 30 cents in the dollar, and so is refunded \$3,816 for her fuel expenses.

Her net fuel costs for the year are \$8,904, or 89 cents per litre.

Fuel costs without fuel tax credits

If Liz was no longer able to claim any fuel tax credits, the price she pays for fuel would increase to \$1.477 per litre, an increase of 20.5 cents per litre. 10,000 litres would cost her \$14,770.

Liz would still claim a 30 per cent tax deduction on her fuel costs, and would be refunded \$4,431, so her net fuel cost would be \$10,339, or 102 cents per litre.

Removing fuel tax credits would increase the price of fuel by 20.5 cents per litre, but after claiming a tax deduction, Liz would only pay an increase of 14.35 cents per litre.

2.2.1 Fuel combustion harms the environment

As the planet continues to warm, heatwaves, bushfires, and floods will inflict greater harm.²⁵

The burning of fuel is a significant contributor to Australia's carbon emissions. Five of the 19 industries in Australia receive 88 per cent of the total value of the fuel tax credits (Figure 2.1). These fuel-intensive industries directly produced more than half of Australia's carbon-equivalent emissions in 2020. And this share is expected to increase to 64 per cent by 2030 as some sectors increase their emissions while other sectors de-carbonise. Petrol and diesel combustion account for about one-fifth of emissions in these industries.²⁶

The mining industry is the largest recipient of fuel tax credits; it claimed more than \$3 billion in the 2021-22 financial year. Just 10 mining companies are estimated to have claimed more than \$1.7 billion in fuel tax credits, and emitted more than 40 million tonnes of carbon, over the same period (Figure 2.2 on the following page). BHP, the largest recipient, received about \$475 million, and emitted 8 million tonnes.

And this includes only two business segments – coal and ore mining – which represent about 70 per cent of fuel tax credit claims in mining.

Fuel tax credits are out of step with the government's climate goals

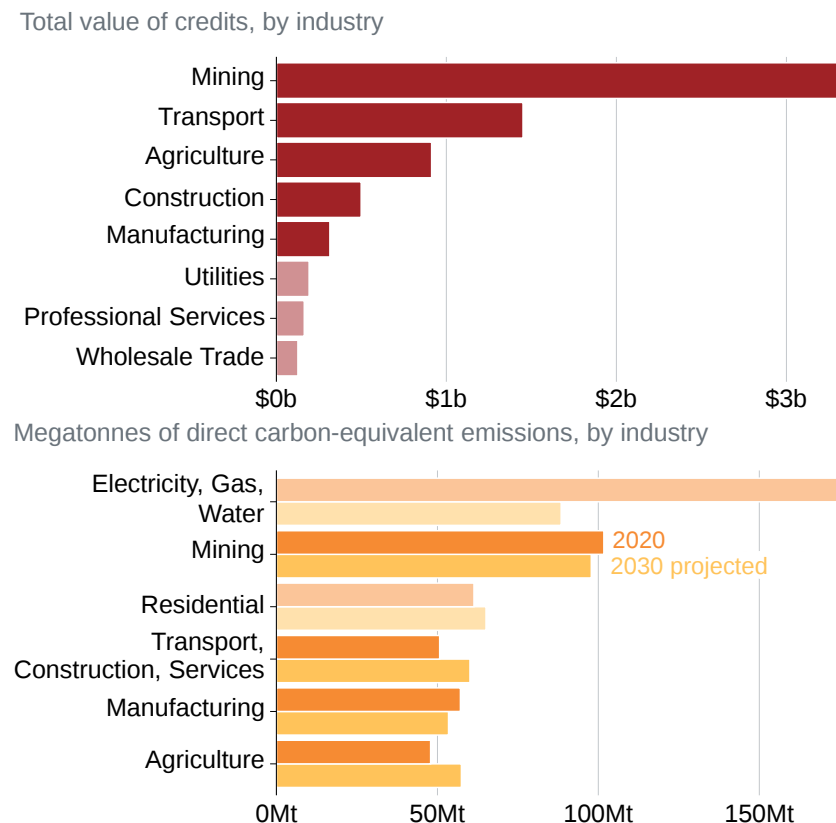
Recognising the urgency of limiting global warming, Australia, along with many other countries, has committed to achieving net-zero carbon emissions by 2050. This commitment includes 'accelerating efforts towards ... the phase-out of inefficient fossil-fuel subsidies'.²⁷ The

25. Climate Council (2014).

26. Grattan analysis of DISER 2022; ABS 2017. The estimate for the petrol and diesel combustion share of industry emissions excludes agriculture because data were unavailable.

27. United Nations (2022, para 36).

Figure 2.1: The five industries that receive the most fuel tax credits are responsible for more than half of Australia's carbon emissions



Notes: Direct emissions only. Only industries that received more than \$100 million in credits shown in top panel. 'Transport, Construction, Services' are grouped as a single industry in the data. The highest emitters within this group are mostly in the Transport, Postal, and Warehousing industry (Clean Energy Regulator 2022a).

Sources: DISER 2022; ATO 2021b.

Albanese Government has also committed to reducing emissions by 43 per cent by 2030, compared to 2005 levels.²⁸

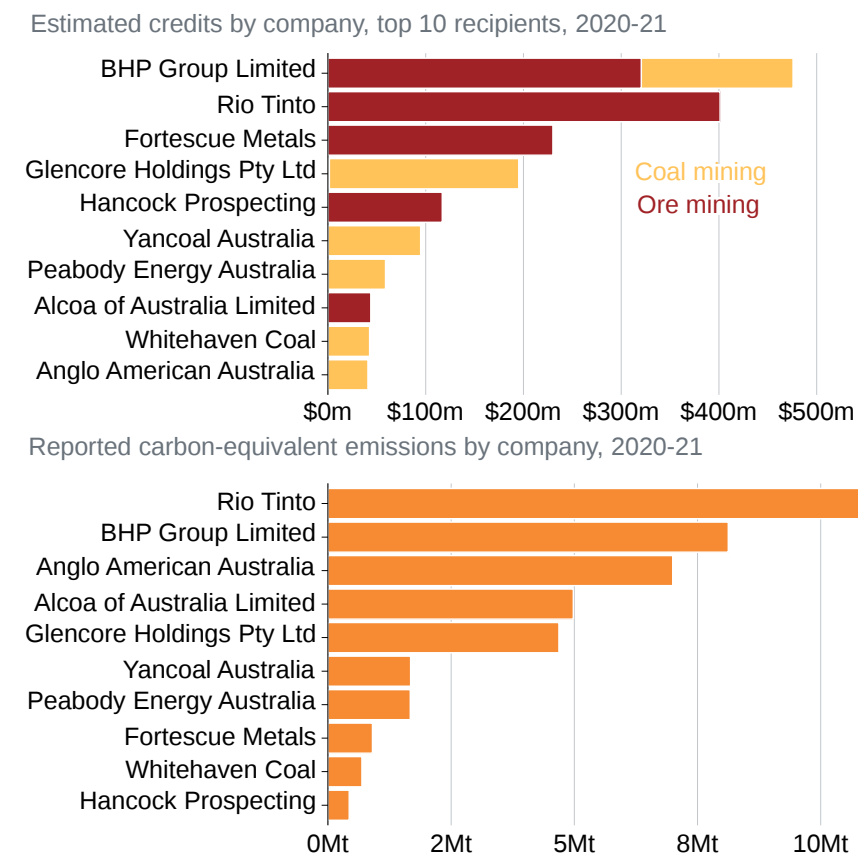
But fuel tax credits, as they currently operate, make it harder than necessary to reach these targets, by masking the true cost of burning diesel. Scaling back fuel tax credits would signal to businesses that they need to properly account for these carbon emissions when making investment decisions.

Diesel is cheap, energy dense, and works in a wide variety of heavy vehicles and machines. The transition to net zero will require substantial reductions in the use of diesel, replacing it with alternative fuels, new technology, and adapted business processes. (Box 3 on the next page outlines some alternatives to diesel use).

Businesses that anticipate higher fuel prices will invest in fuel-efficient technologies and practices, leading to a reduction in fuel use or a switch to cleaner energy sources.²⁹ Investing in greener technology early would not only help Australia meet its 2030 and 2050 emissions targets, it would improve the competitiveness of our industry in the longer term.

While there was some attempt to limit environmental harm when the fuel tax credit scheme was introduced, the attempt was half-hearted. The *Fuel Tax Act 2006* required that any business claiming more than \$3 million in fuel tax credits be a member of the Greenhouse Challenge Plus Program.³⁰ But that program had been set up to avoid requiring businesses to adopt any environmental practices that might reduce their profitability, and in the knowledge that it was difficult to assess whether the emissions reductions under the program were ‘over and

Figure 2.2: The top 10 mining recipients claim more than \$1.7b in credits



Notes: Estimated credits are based on average fuel tax credit per unit of production at the sub-industry level, multiplied by each firm's total production quantity. Assumes fuel inputs per unit of production do not vary between firms in a sub-industry. Only coal and ore mining are included in the top panel, which represent about 70 per cent of total credits to the mining industry, and probably results in an underestimation of credits for some firms.

Sources: Grattan analysis of publicly available company data, ATO 2021b, DISR 2022, and Clean Energy Regulator 2022b.

28. Albanese and Bowen (2022).

29. OECD (2019, pp. 68–72).

30. Webb (2006).

above what would have been achieved through a business-as-usual approach'.³¹ The program was discontinued in 2009.

Environmental considerations are partially recognised in current fuel taxation rates, because liquefied natural gas and other alternative fuels are taxed at 50 per cent of their full energy content tax rate. But the credit and the Road User Charge (RUC) remove or reduce this advantage. For instance, the fuel tax rate on liquefied natural gas is still about half that on diesel, but interactions with the heavy vehicle RUC mean that users of LNG now pay more than 80 per cent of their energy-intensity-equivalent rate.³²

This means that businesses can claim millions of dollars in fuel tax credits without any conditions on their carbon emissions.

The price of carbon is uncertain

To price carbon emissions from a given activity, we can multiply the amount of CO₂ emissions from each litre of fuel used in that activity by a carbon price.³³ Each litre of diesel burned emits 2.68kg of carbon dioxide (CO₂), and each litre of petrol emits 2.31kg of CO₂.³⁴ However, there is no consensus about what a CO₂ price should be.

The lack of consensus in CO₂ pricing is evident from the range of prices adopted by countries around the world.³⁵ Carbon prices, emissions trading schemes, or hybrid models exist in 39 countries, and a number of sub-national schemes also operate. The share of emissions covered by these policies range from 30 per cent to 70 per cent, and the economy-wide average price ranges from \$7 per tonne

31. Parliament of Australia (2000, pp. 334–335).

32. Griffiths (2021).

33. Coady et al (2019).

34. University of Exeter (2022).

35. All international carbon price estimates in this report are presented in 2021-22 Australian dollars: ABS 2022a; RBA 2022.

Box 3: There are alternatives to diesel

Diesel use can be replaced with alternative fuel types, new machine technologies, and/or modified business practices.

Electricity, increasingly generated from renewables, can replace diesel in some circumstances. It's becoming widespread in light passenger vehicles, and can work in certain predictable industrial settings; for instance, electric cables can be used in deep pit mining.

But electricity is less suited to heavy vehicles, at least for now. This is because the time it takes to recharge a battery limits a vehicle's productive time, and also because the weight of the battery reduces a vehicle's potential payload.

Low-carbon fuels, such as biodiesel, synthetic diesel, and green hydrogen, are less carbon-intensive than conventional diesel. Synthetic diesel is a 'drop-in' fuel that can replace conventional diesel without major changes to diesel engines.

Low-carbon fuels are much more expensive than conventional diesel, and have lower energy density.

But things are changing. Batteries are becoming becoming increasingly dense,^a so that they last longer without an increase in weight. Low-carbon fuels are becoming more affordable, with synthetic diesel expected to be available at scale by the early 2030s.^b New vehicle and machine technologies are also developing; for instance, small and medium-sized electric tractors are coming onto the market overseas.^c

a. Office of Energy Efficiency and Renewable Energy (2022).

b. Russell et al (2021).

c. For example from New Holland, Kubota, Solectrac, and Monarch.

to more than \$130 per tonne.³⁶ Box 4 explains common approaches to pricing carbon.

A conservative carbon price of \$75 per tonne would imply a carbon 'externality' cost of 20 cents per litre on diesel fuel. A higher carbon price of \$140 per tonne would imply a cost of 37.5 cents per litre. The price is likely to increase as the damage caused by additional emissions increases, and we move closer to our 2050 deadlines.

The federal government is finalising a set of reforms to the Safeguard Mechanism that would effectively cap the carbon price applying to about 215 large industrial facilities, and currently covering about 28 per cent of Australia's emissions. The specific proposals will cover 4.9 per cent of affected companies' emissions in 2024, 9.8 per cent in 2025, 14.7 per cent in 2026, and so on until 2030. The effective cap on the carbon price will be created by selling domestic offsets at \$75 per tonne, rising by the rate of the CPI plus 2 per cent per year, for emissions above allowable levels required to achieve the 2030 emissions reduction target.³⁷

While these reforms clearly entail an increase in Australia's emissions reduction effort, the carbon price implied by the Safeguard Mechanism reforms is still very low. The effective carbon price in 2024 by these rates is \$3.68 per tonne, rising to \$33.50 in 2030.³⁸ By way of comparison, industry experts estimate that the carbon price needed to limit global warming to 1.5 degrees above pre-industrial levels would have to reach US\$160 per tonne by 2030.³⁹

36. Parry et al (2022).

37. DCCEEW (2023).

38. Grattan Institute analysis.

39. Wood Mackenzie (2021).

Box 4: Three approaches to pricing carbon

One approach is to model how much damage each extra tonne of CO₂ emissions causes, referred to as the Social Cost of Carbon (SCC). Estimating the SCC involves modelling a number of highly uncertain factors, such as the effect of CO₂ emissions on temperatures and the climate, long-term population and economic growth rates, and how to weight current costs against future costs.^a Estimates of the SCC range from AU\$-20 to AU\$3,491 per tonne of CO₂.^b The US government uses a SCC measure in cost-benefit analysis, currently at the rate of AU\$75 per tonne.^c

A second approach is a cap-and-trade program, which entails setting a net-zero target date and pathway, and then issuing tradeable permits to achieve these goals. In the US, this results in an estimated carbon price of AU\$75 per tonne in 2025 to achieve net zero by 2050, though the estimate varies depending on factors such as other environmental policy settings and the price of fuel.^d In the well-established European market, prices climbed as high as AU\$154 a tonne in 2022.^e

A third approach is to use the market price for offsetting carbon emissions. This price will become increasingly relevant as we approach the deadlines for emissions reduction, because remaining emissions will have to be offset at the market rate. In Australia, today's offset price is about \$37 a tonne,^f with a proposal to cap the price at \$75 a tonne in 2023-24 for companies subject to the Safeguard Mechanism.^g

a. Barron et al (2020) and Rennert et al (2021).

b. Wang et al (2019).

c. This has differed under past administrations: Woellert and Colman (2021).

d. Barron et al (2020).

e. Trading Economics (2022).

f. Jarden Australia (2022).

g. DCCEEW (2023).

... but that does not mean it should be ignored

The price of carbon may be uncertain, but there is no disputing that carbon emissions produce real social, economic, and environmental costs, and that therefore a price of zero is too low.

Even companies that would be affected by our policy proposal accept that \$75 per tonne is a conservative carbon price. Look no further than what they tell their shareholders. Several companies in industries which are large recipients of fuel tax credits factor 'internal' carbon prices of more than \$100 per tonne into their investment decisions. These companies include Toll, BHP, BP, Bulga Coal Management, Rio Tinto, and Newmont.⁴⁰

As we get closer to 2050, the price of carbon is likely to increase. As the offset market in Australia matures and applies to a larger share of emissions, it will also become a more reliable measure of the carbon price. The government should ensure the rate of fuel tax credits for off-road use remains in step with the carbon price applying more broadly in the economy.

2.2.2 Fuel combustion harms our health

Fuel combustion processes are the primary cause of air pollution in Australia,⁴¹ mostly from vehicles, coal-fired power stations, and industry emissions.

Air pollution causes and exacerbates a number of deadly diseases, ranging from asthma to coronary heart disease and lung cancer. In 2018, more than 3,200 premature deaths were attributed to air pollution from fine particulate matter, known as PM2.5,⁴² almost three times the road death toll.⁴³

40. Grattan analysis of publicly available data.

41. Parliament of Victoria (2021).

42. AIHW (2021, p. 67).

43. BITRE (2021a, p. 2).

To make matters worse, air pollution disproportionately affects the most vulnerable members of society, including unborn babies, children, the elderly, and people with existing health conditions. Because air pollution exists in the air where we live and work, it is almost impossible to avoid.⁴⁴

Air pollution also damages the natural environment and wildlife, by impairing vegetation growth, acidifying soils and freshwater, and causing disease.⁴⁵

Health costs vary by location and technology

The amount of pollution caused by fuel combustion, and the damage this pollution causes to human health, varies depending on the location and technology. But fuel tax is not well-suited to differentiating between more and less harmful locations and technologies, because it is applied at a flat rate per litre.

Location matters because air pollution only harms people who breathe it in, meaning the impacts are highest in areas of high population density.

More than 85 per cent of the cost of air pollution from motor vehicles is borne in capital cities.⁴⁶ Since heavy vehicles drive on public roads, which are typically where people live, they are likely to create more health costs than industrial processes, which primarily occur in regions with lower population density.

44. For further detail on the health and cognitive burdens of air pollution, see Terrill et al 2022.

45. Parliament of Victoria (2021, p. 18).

46. BITRE (2005, pp. 100–101).

The cost of pollution in urban areas is estimated to be 15-to-19 cents per litre of fuel, compared to about 2 cents per litre in rural areas.⁴⁷

While fuel tax credits have in the past been limited to journeys with a start or finish destination outside metropolitan boundaries,⁴⁸ this provision did not reflect the costs of heavy vehicles driving through metropolitan areas. It also had significant compliance costs for businesses, which had to record their journeys and fuel use to determine what share of their fuel consumption was eligible for credits.

Technology matters because it can be used to reduce the amount of pollution that vehicles and industrial processes produce.

For example, trucks manufactured before 1996, when pollution standards were introduced, produce more than 60 times more particulate matter than trucks manufactured today. These old and dirty trucks continue to make up more than 14 per cent of Australia's truck fleet.⁴⁹

While the fuel tax credit scheme requires on-road vehicles manufactured before 1996 to meet one of three environmental criteria to qualify for credits,⁵⁰ these criteria are far from effective at reducing harmful pollutants. Two criteria impose modest truck maintenance obligations, while a third requires trucks to pass an emissions test that is no longer enforceable in most states due to facilities closing.⁵¹

47. IPART 2012; AustRoads 2014 and Department of Infrastructure, Transport, Regional Development and Communications 2021. Amounts converted into cents per litre using ABS 2020 and inflated to 2022 dollars using ABS 2022a.

48. This restriction excluded vehicles weighing more than 20 tonnes: Australian Government (2004).

49. See Terrill et al 2022 for a detailed discussion of the impacts of trucks, and Grattan's recommendations to reduce air pollution.

50. Vehicles used mainly for primary production or on an agricultural property are exempt.

51. Gjerek et al (2021) and Department of Transport and Regional Services (2006).

Vehicles manufactured after 1996 are not required to meet any further environmental criteria. At the time of policy implementation in 2006, this only included vehicles less than 10 years old. Today, that includes vehicles that are 27 years old.

A mix of price and improved regulatory measures is needed

Given the substantial differences in costs depending on location and technology, a tax based on average air pollution would result in emitters in regional areas paying too much, and emitters in cities paying too little.

Because fuel is imposed at a flat rate per litre and does not vary by vehicle or location, a lower bound estimate of air pollution costs should be included in the fuel taxation paid by business users. Regulation will be necessary to supplement this by addressing the more variable costs of air pollution.

While Australia has lagged behind other advanced countries, it has introduced increasingly stringent limits on the amount of harmful pollutants that new trucks can emit. These limits, known as 'Euro Standards', reflect the pollution-reducing technologies available at the time. The federal government recently announced that it will introduce Euro-VI standards for new truck sales from 2024.⁵² A higher price for fuel would complement this policy by reinforcing the benefits of moving to more fuel-efficient and less-polluting vehicles.

Regulatory policies to reduce emissions in areas of high population density are lacking. As outlined in the 2022 *Grattan Truck Plan*, a low-cost way of achieving this would be to ban old and dirty trucks from Sydney and Melbourne.⁵³

52. King and Bowen (2022).

53. Terrill et al (2022).

2.2.3 A user-pays approach to road use and damage

A common misconception about fuel taxation is that the revenue is used to pay for roads. In general, this is not the case (see Box 5 on the next page).

However, businesses expect high-quality roads to be available for their use, and so they should pay for their share of the costs.

Heavy vehicles are currently under-charged

Heavy vehicle operators are supposed to pay for their share of road damage and construction costs through a federal heavy vehicle RUC and state-based vehicle registration fees. Registration fees differ by state and vary depending on the amount of damage that different types of heavy vehicles are estimated to do to the road, while the RUC depends on fuel consumption, to take account of the distance travelled. The current RUC is 27.2 cents per litre, and is paid through a reduction in the rate of fuel tax credits for heavy vehicle users.⁵⁴

The National Transport Commission is responsible for recommending the rate these charges need to be set at to fully recover heavy vehicles' share of road construction and maintenance costs.⁵⁵ However, the final decision on the rate sits with infrastructure and transport ministers, with the federal government deciding the RUC rate and the states and territories deciding registration fees for their jurisdictions.⁵⁶

Since 2014-15, transport ministers have limited increases in the RUC, because they have been concerned about how the charges were calculated, the difficulty for the industry to absorb large fluctuations in costs, and, more recently, the impacts of COVID-19 on the transport

industry. Between 2015 and 2020, the RUC rate was reduced,⁵⁷ while total government expenditure on roads increased by 27 per cent.⁵⁸

The combination of lower charges and higher spending means that costs have been under-recovered for several years, and the problem is growing. For 2022-23, the gap between full cost recovery and revenue from the RUC and registration charges is estimated to be 24.1 per cent, or \$847 million.⁵⁹ In 2023-24, the gap is expected to be 38.7 per cent, or \$1.4 billion.⁶⁰ Achieving full cost recovery would require increasing the RUC from 27.2 cents per litre to 37.7 cents per litre.

The level of under-recovery is exacerbated by rules about powering auxiliary equipment on trucks. A potentially substantial amount of fuel has become exempt from the RUC where that fuel is used to power auxiliary equipment, rather than 'for travelling' on a public road, as specified in the *Fuel Tax Act 2006*. For example, a cement truck operator only pays the RUC for the fuel it uses to propel the truck, not the fuel it uses to mix the concrete.

This kind of exemption results in under-recovery because of the way the RUC is estimated. The RUC is designed to achieve full cost recovery of the heavy vehicle cost base, and the recommended rate of the RUC is set accordingly. The amount of fuel upon which the RUC is imposed is estimated using the ABS Survey of Motor Vehicle Use; however, this survey does not ask respondents to differentiate between fuel to propel vehicles and fuel for auxiliary uses. The result is that the recommended RUC rate is insufficient for full cost recovery.

The National Transport Commission states that exemptions of this kind have become more widespread since the Tax Office first issued the

54. National Transport Commission (2022b).

55. National Transport Commission (2021, p. 9).

56. Department of Infrastructure, Transport, Regional Development and Communications (2020, p. 8).

57. ATO (2015).

58. BITRE (2021c).

59. National Transport Commission (2022a, p. 12).

60. National Transport Commission (2022c, pp. 6–7).

Box 5: Fuel tax is not used to pay for roads

When first introduced, revenue from excises on petrol and diesel used on-road were earmarked, or ‘hypothecated’, for expenditure on roads. But this practice ended in 1959, more than 60 years ago.^a

Today, there is essentially no link between most fuel tax revenue, other road-related revenue, and the level of road-related expenditure in Australia (Figure 2.3).

About one third of road-related revenue comes from fuel tax. This revenue is not hypothecated to road spending (other than the small fraction attributable to indexation dating from the reintroduction of indexation in 2014-15).^b

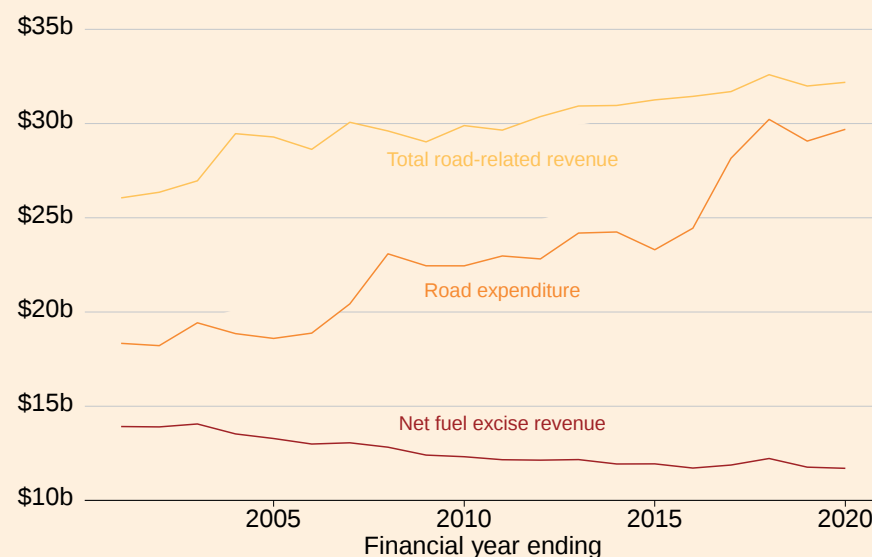
The remaining two thirds of road-related revenue comes from sources including vehicle registration fees, customs duties on motor vehicles, license fees, stamp duty, tolls, road-related fringe benefits tax and GST, and the luxury car tax.^c Revenue from these sources is not hypothecated to road spending.

The heavy vehicle RUC operates differently to other road-related taxes and charges. It recovers money already spent on roads that is attributable to heavy vehicles, and returns that expenditure to general revenue.

- a. There has been hypothecation of parts of the fuel excise in subsequent policy. In 1982, a surcharge was imposed to provide grants for road construction to the states under the *Australian Bicentennial Road Development Trust Fund Act 1982*. In 1985, the *The Australian Land Transport (Financial Assistance) Act 1985* hypothecated a proportion of the excise to road funding. These Acts were replaced in 1988 by the *Land Transport Development Act 1988*, which also contained a provision for hypothecation, though the practice was discontinued.
- b. *Fuel Indexation (Road Funding) Special Account Act 2015*.
- c. BITRE (2021b, p. 71).

Figure 2.3: Road-related spending is going up, but net fuel tax revenue is going down

Net road-related revenue and expenditure



Sources: BITRE 2021c.

relevant guidance in 2016.⁶¹ It estimates that the under-recovery from this source amounts to about \$68 million a year.⁶²

Heavy vehicle charging in the longer-term

Even though the number of diesel vehicles on our roads will dwindle over time, and so will the revenue from fuel taxes, the transition will take decades. Only 0.03 per cent of the Australian heavy vehicle fleet is electric or hybrid at present.⁶³ By 2040, when we could reasonably expect that 100 per cent of new rigid truck sales could be electric, it's likely that new articulated truck sales would fall some way short of that.⁶⁴

Implementing heavy vehicle road-user charging through a fuel-based tax will gradually become unviable as the fleet shifts towards electric and hybrid options, and alternative fuels. Under current policy, drivers of electric trucks do not pay a distance-related charge for the damage they cause to roads, and users of some alternative fuels pay discounted rates.

Australian governments have responded to these changes in two ways.

One approach has been to introduce distance-based charges on electric and hybrid light vehicles, which could form a model for heavy vehicles. In 2021, Victoria introduced a charge for zero- and low-emissions vehicles, currently set at 2.6 cents per kilometre for electric vehicles, and 2.1 cents per kilometre for hybrids. NSW plans to follow suit. Victoria's charge is subject to a challenge in the High Court;

the outcome of that challenge will determine whether these charges can be levied by states, or only by the federal government.⁶⁵

Another approach is multi-jurisdictional reform of the current heavy vehicle charging scheme. The reforms under consideration to come into effect in 2024 aim to create a tighter nexus between what heavy vehicle users pay and the services they receive, as well as to improve budget predictability for road building and maintenance.⁶⁶ The mechanisms to achieve these aims include developing service level standards for roads, which would guide investment; creating state and territory government expenditure plans, which would be assessed by an independent body; establishing an independent price regulator to set heavy vehicle charges; and working out hypothecation arrangements for the revenue.⁶⁷

The degree of difficulty of this approach is evident from the fact that although the mechanisms were agreed to back in 2014, they remain at an early stage of development.⁶⁸ Indeed, reform to heavy vehicle road charging and investment has been a focus for Australian governments for at least the past 20 years, and a particular focus of the reform agenda of the Council of Australian Governments and its successor, the National Cabinet, since 2007.

Any reforms to road-user charging should ensure that the on-road fuel tax rate doesn't drop below our proposed off-road rate. This would ensure that all diesel users continue to pay for the environmental and health damage they cause.

61. National Transport Commission (2021, pp. 60–61).

62. Ibid (pp. 60–63).

63. Ibid (p. 68).

64. A reasonable assumption is that 70 per cent of new articulated truck sales could be electric by 2040: Terrill et al (2022).

65. Holcombe Henley (2022).

66. Department of Infrastructure, Transport, Regional Development, Communication and the Arts (2019, p. 1).

67. Department of Infrastructure, Transport, Regional Development and Communications (2020).

68. Infrastructure and Transport Ministers (n.d.).

2.2.4 Getting the price right

The sections above outline the environmental and health costs that businesses impose on others, and the full cost of heavy vehicles' share of road construction and maintenance expenses.

For heavy on-road vehicles, these costs can be expressed in monetary terms at 59.8 cents per litre of diesel burned, comprising:

- 20.1 cents per litre for carbon emissions;
- 2 cents per litre for exhaust pipe pollutants; and
- 37.7 cents per litre for road construction and maintenance.

Other costs, including noise pollution, accidents, and traffic congestion, are not included in these estimates. Noise pollution and traffic congestion are both inherently localised; fuel tax is poorly suited to recovering such costs. Accidents can occur anywhere, but our estimates exclude them because the costs are addressed through safety regulations and compulsory insurance, and because accidents are caused by the behaviour of a few, rather than each driver causing a small share of those costs.

A cost of 59.8 cents per litre is well below the current rate of fuel tax paid by heavy on-road vehicles (Figure 2.4).

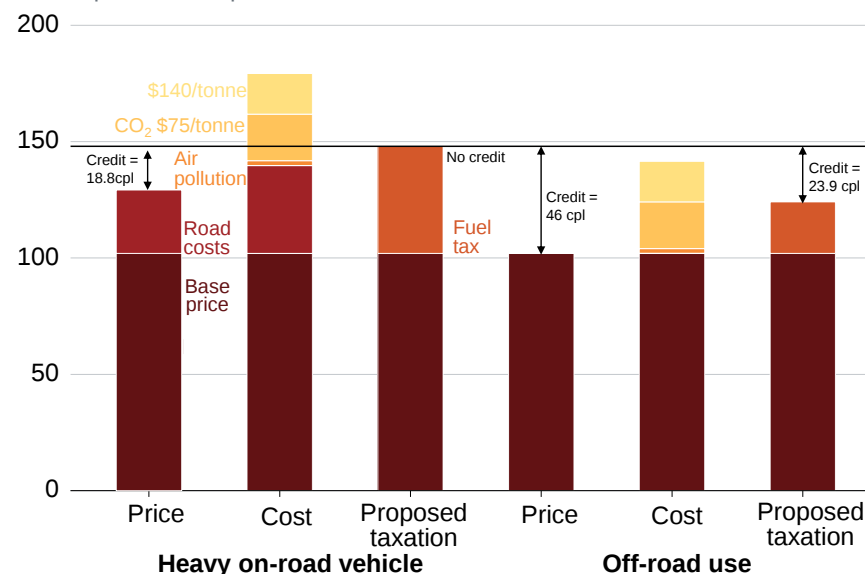
Even at very conservative cost estimates, heavy on-road vehicles' costs are also higher than the current fuel tax rate. There is therefore no rationale for fuel used for this purpose to attract any fuel tax credits.

Recommendation 1

Fuel tax credits should be removed for heavy on-road vehicles, increasing the effective fuel tax rate to 47.7 cents per litre in 2023, indexed to CPI.

Figure 2.4: It's time for businesses to cover their costs

Diesel price, cents per litre



Note: Fuel base price as at December quarter 2021.

Sources: IPART 2012; AustRoads 2014; Department of Climate Change, Energy, the Environment and Water 2022; National Transport Commission 2022a; ABS 2022a; ABS 2020.

For off-road fuel use, conservative cost estimates fall below the current fuel tax rate. This is because off-road vehicles and machines do not use public roads and therefore should not pay any user charges for road use. The cost of a conservative charge for air pollution and carbon emissions is 22.1 cents per litre, and off-road charges should not exceed this amount.

Recommendation 2

Fuel used off-road should receive a reduced credit of 25.6 cents per litre in 2023, indexed to CPI, increasing the effective fuel tax rate to 22.1 cents per litre.

Fuel tax interacts with other emissions-reduction policies

In the absence of an economy-wide carbon price or emissions trading scheme, sector-specific or fossil fuel-specific policies are required to meet Australia's legislated emissions-reduction targets. As different policies come into play, there are two ways that they might interact with changes to fuel tax credits.

First, having a range of policies will probably entail a range of carbon prices, resulting in some businesses paying more for their emissions than others. It also means that emissions from fuel are priced while emissions from some other sources are not. This gives some businesses an unfair advantage.

But all businesses should pay for the environmental damage they cause, and other emitters not being taxed is a poor reason not to tax fuel.

Having a range of prices might encourage businesses to switch from diesel towards other fossil fuels that don't incur the same rates of

taxation. But the ability to replace petrol and diesel with other fossil fuels is limited. For example, you cannot use coal to power a truck.

Second, there is a risk of businesses paying twice for their carbon emissions. For example, the government is consulting on its reform plans for the Safeguard Mechanism, which will require large industrial emitters to reduce their carbon emissions or pay an offset price that it proposes should be capped at \$75 per tonne in 2023-24 for 4.9 per cent of emissions, rising both in price and also the share of emissions covered.⁶⁹ The risk is that some businesses subject to the Safeguard Mechanism may end up paying to offset emissions from burning diesel, while also paying fuel tax on that diesel.

Business should not have to pay for the same emissions twice. As more carbon policies are introduced in Australia, a system of refunding this double-taxation will be required.⁷⁰

2.3 Removing heavy vehicles' unfair advantage

For on-road business vehicles, a partial credit is available for fuel used in vehicles weighing more than 4.5 tonnes, but no credit is available for fuel used in vehicles weighing less than 4.5 tonnes. This disparity, shown in Figure 2.5 on the following page, is arbitrary and inefficient.

It is arbitrary because it excludes many vehicles that are used primarily for business purposes. While it's true that most vehicles weighing more than 4.5 tonnes are used exclusively for business purposes, the same could be said for vehicles weighing more than 3.5 tonnes. Indeed, both

69. DCCEE (2023, p. 40).

70. Under the carbon pricing scheme in operation between 2012 and 2014, light commercial vehicles continued to pay fuel tax and were not subject to the carbon price; heavy on-road vehicles were intended to face a carbon price from 2014; and off-road users faced a reduction in fuel tax credits and the choice to opt into the carbon pricing scheme. Agricultural producers were exempt: Australian Government (2013).

of Australia's primary surveys on motor vehicles draw the boundary between light and heavy freight vehicles at 3.5 tonnes.⁷¹ A 3.5-tonne vehicle might be a very large van, or a small rigid truck, both of which might be used primarily for business purposes.

There are also more than 3.5 million light commercial vehicles registered in Australia that were constructed to carry goods or specialist equipment.⁷² This includes vehicles such as panel vans and utes, which weigh less than 3.5 tonnes. And many light passenger vehicles are also used for business purposes, such as taxis and delivery vans.

The preferential tax treatment of heavier vehicles is also inefficient.

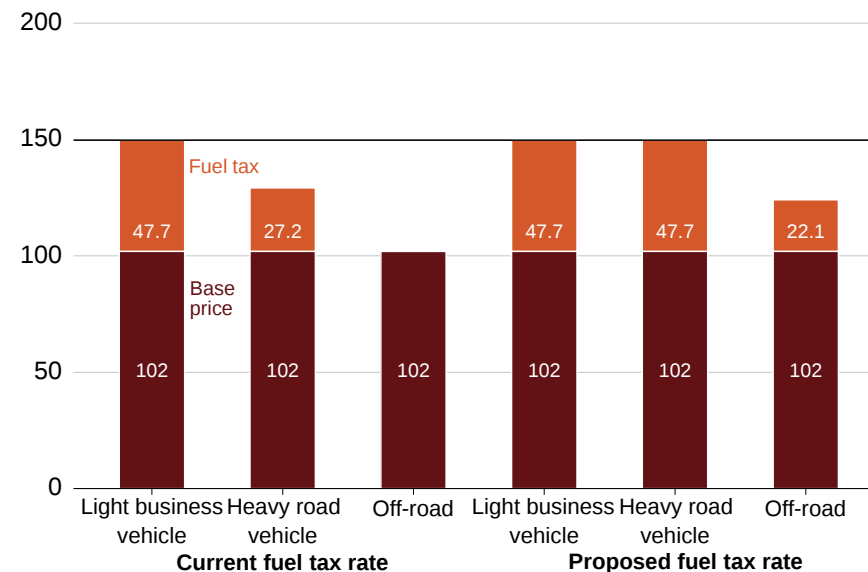
First, heavier vehicles do much more damage to our roads than light vehicles, yet pay less fuel tax. Vehicles that weigh more than 4.5 tonnes account for about 94 per cent of deep road wear, whereas light vehicles do very little damage to roads.⁷³

Second, the preferential tax treatment of heavier vehicles makes goods or services that are transported by heavy vehicles artificially cheaper than goods or services transported in lighter vehicles. This affects the prices of goods, and may encourage businesses to purchase heavier vehicles to minimise their tax burden.⁷⁴

Under our proposal, heavy and light on-road vehicles would pay the same rate of tax, removing these inefficiencies (Figure 2.5). The difference in fuel tax between off-road and on-road users reflects that off-road users do not have to pay a road user charge.

Figure 2.5: Our proposal would remove the unfair tax advantage for heavy vehicles

Effective diesel price, cents per litre



Note: Diesel price as at December 2021.

Sources: Department of Climate Change, Energy, the Environment and Water 2022; ATO 2022b.

71. ABS (2021a) and ABS (2020).

72. ABS (2021a).

73. National Transport Commission (2021, p. 49).

74. At the margin, the higher tax for smaller vehicles could encourage the use of rail, since diesel used for rail also attracts the full fuel tax credit; however, the scope to substitute between road and rail freight is very limited: Terrill et al (2022, pp. 8–9).

A natural question is whether light business vehicles would be paying too much fuel tax under our proposal, since they do less harm than heavier vehicles. But light vehicles are not without costs.

In fact, the harm done by light vehicles also clearly exceeds the fuel tax rate of 47.7 cents per litre in 2023. For petrol cars, the damage can be expressed in monetary terms at 49.3 cents per litre (and for diesel utes and other light vehicles, at 52.1 cents per litre), comprising:

- 17.3 cents per litre for petrol and 20.1 cents per litre for diesel, for the cost of carbon emissions;⁷⁵
- 32 cents per litre for road construction and maintenance.⁷⁶

2.4 A simplified tax

A reduction in the fuel tax credit rate would also reduce regulatory costs for businesses and government.

Compared with other taxes, fuel tax is very simple to implement and enforce. It is collected from producers or importers of fuel, at the point it leaves their refinery, terminal, or storage depot, and is already built into the price at the bowser. This makes it very difficult to evade, and simple to enforce.

Fuel tax credits require more effort: businesses calculate how much they are owed in fuel tax credits, and report that amount to the Tax Office in their regular business activity statements. The Tax Office conducts regular audits to ensure businesses are complying with their tax obligations and calculating their credits correctly. The National Transport Commission calculates the RUC on the basis of full cost

75. A \$75 per tonne carbon price translates to 17.3 cents per litre for petrol cars, and 20.1 cents per litre for diesels.

76. Grattan analysis of National Transport Commission (2019) and ABS (2020); and BITRE. See Appendix A for further detail.

recovery of the road construction and maintenance costs attributable to heavy vehicles.

Under our proposal, businesses and government would both have a lighter compliance burden.

Businesses would continue to pay fuel tax at the bowser, but those businesses only using heavy vehicles on-road would no longer need to calculate their fuel tax credit amount. Businesses using vehicles both on- and off-road would only need to calculate their off-road credits.

This tax simplification is a further argument not to charge the full on-road cost for heavy vehicles, which we estimate to be 59.8 cents per litre. A simple removal of the credit for this class of user would constitute a meaningful reduction in regulatory burden.

Businesses would also no longer need to calculate the share of their on-road fuel used for powering auxiliary equipment. Fuel used for auxiliary purposes, such as for refrigeration, does not currently incur a road user charge. The different effective tax rates for fuel used to propel the truck and to power auxiliary equipment require the business to calculate the share of fuel used for each purpose. While the Tax Office provides simple rules to calculate this, businesses typically claim well above the recommended amounts.⁷⁷ Fuel used in auxiliary equipment in road vehicles should not be eligible for the fuel tax credits, and should be taxed at the same rate as all on-road fuel. This would simplify the administration of the scheme.

Recommendation 3

The on-road fuel tax rate should apply to all fuel used on-road, including fuel used for powering auxiliary equipment.

77. National Transport Commission (2021, p. 61).

Under our proposal, businesses would also be better placed to predict their RUC costs. The model the National Transport Commission currently uses to recommend the rate of the RUC depends on road expenditure in any given year. But the costs associated with road construction and maintenance fluctuate substantially year-on-year, because a single large project can have a large effect on overall spending, and because road investment decisions are often only weakly connected to need or economic efficiency.⁷⁸ Indexing to CPI, rather than expenditure, would help to smooth out the costs incurred by businesses over time.

Under our proposal, government administration would also be simplified. Removing the credit for on-road vehicles would remove or reduce the need for the National Transport Commission to calculate and recommend the rate of the RUC each year.⁷⁹ Federal transport ministers have not followed the Commission's advice for several years, instead choosing to minimise cost increases and under-recover for expenses attributed to heavy vehicles.⁸⁰ This has meant that the gap between the estimated cost base and revenue has grown over time, from 11.4 per cent in 2019-20 to 38.7 per cent in 2023-24.⁸¹

Under our proposal, there would be a one-off increase to the rate of fuel tax paid by heavy vehicles, and that amount would then be indexed to CPI. This change would be timely, because the ABS Survey of Motor Vehicle Use, which the National Transport Commission uses in its modelling, has recently been discontinued.⁸²

78. Terrill et al (2016).

79. Some method of regularly updating states' heavy vehicle registration charges would still be needed, but this could be achieved by indexing current rates and conducting periodic reviews.

80. Expenses are collected two years after the time period that they are estimated. This means that some over- and under-recovery would be expected even if ministers followed the recommendation of the National Transport Commission.

81. National Transport Commission (2022a).

82. ABS (2020).

3 The impact on households and businesses would be very limited

Reforming fuel tax credits could make a meaningful dent in the structural budget deficit, and also help end a longstanding failure to properly account for the damage caused by carbon emissions and air pollution from burning diesel fuel.

Savings in the order of \$4 billion per year do not come without some costs, but the impacts on households' cost of living would be very small.

The impacts on businesses that receive the credit would also be very small. In part that is because the increment to costs would be so small, comparable to normal fluctuations in fuel prices. It's also because many businesses don't claim the credit, particularly small and medium businesses. And while there would probably be a small impact on exports, Australian businesses face very low effective taxes on carbon by international standards – at least for now.

3.1 Impacts on households' cost of living would be very small

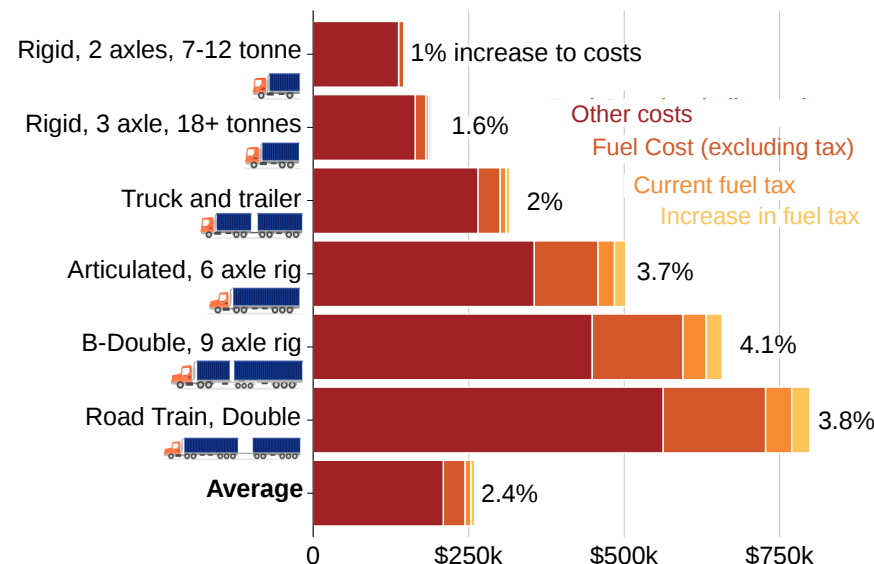
Households spend their incomes on all sorts of things, expressing what they need, what they like, and what they can afford. The largest categories of consumption are housing, which accounts for 24 per cent of the typical CPI basket of goods and services, followed by food and non-alcoholic drinks, at 17 per cent, and transport, at 11 per cent.⁸³

Grattan Institute analysis indicates that the price of a \$100 shop at the supermarket would rise to \$100.35 if our fuel tax credit reforms were introduced. This price increase would arise for two reasons.

First, the cost of freighting goods would go up, by about 0.1 of 1 per cent, or 10 cents for a \$100 item. That's because a reduction in fuel

83. ABS (2021b).

Figure 3.1: The increase to transport costs would be very small
Annual operating costs of common heavy vehicles



Notes: Trucks were selected to reflect the most common type within broad size categories. 2020 prices. The average cost is a weighted average that reflects the share of different truck types in use.

Source: Grattan analysis of National Transport Commission 2020.

tax credits would increase the cost of operating a truck by an average of 2.7 per cent (Figure 3.1), and the cost of freighting a good typically accounts for about 5 per cent of the final retail price.⁸⁴

Second, the cost of food and other products that derive from Australian agriculture would increase by 0.5 of 1 per cent. This reflects that costs

84. See, for example, Productivity Commission (2006, F.1), and BITRE (2001, p. 28).

to the agricultural industry would increase by just under 1 per cent, and these costs make up about half of the final price paid by consumers. Meat, dairy, fruit and vegetables, most of which are produced in Australia,⁸⁵ make up about half the cost of a typical trolley's worth of goods.⁸⁶

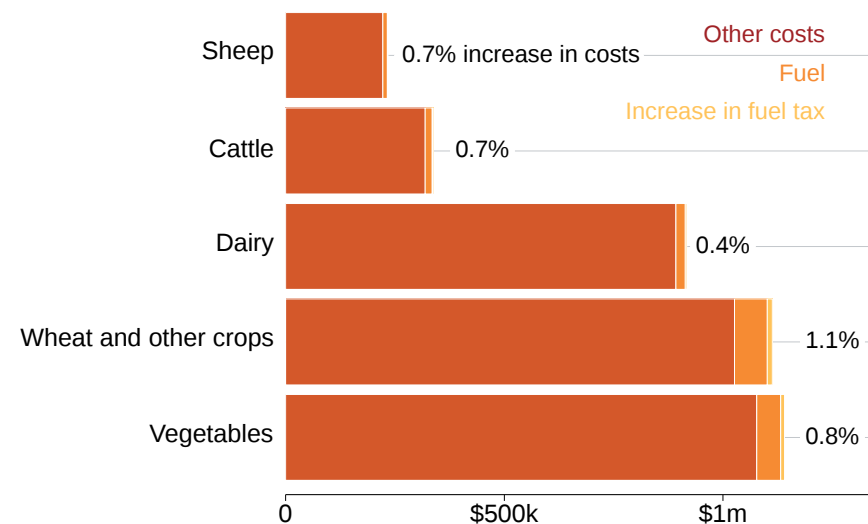
Fuel accounts for about 5 per cent of farm production costs on average, and the estimated increase in costs would generally be below 1 per cent for sheep, cattle, dairy, and vegetable growers, and slightly above 1 per cent for growers of crops such as wheat (Figure 3.2). These differences reflect the different fuels and fuel intensity of different crops. For example, heavy machinery used in the production of wheat and other crops currently relies on diesel, while it's more common for dairy farming to use electricity. Depending on the suitability of land, the accessibility of technology, and consumer demand, farmers can also change the mix of commodities they produce.⁸⁷

Other household costs would also increase if fuel tax credits were reduced, but again, the increases would tend to be very small.

Lower-income households typically spend a larger proportion of their income on groceries and other essentials. We estimate the increase in costs for the 20 per cent of households on the lowest incomes would be 0.1 of 1 per cent, equivalent to an average of \$45 per year. The percentage increase for higher income households would typically be slightly lower, although the dollar increase would be higher, at an average of about \$108 per year.⁸⁸

Figure 3.2: The average increase in costs to farm businesses would be very small

Annual operating costs of the average farm, 2021 dollars



Notes: All fuel is assumed to be used in off-road production activities. Costs for vegetable farms was inflated from 2017 dollars to 2021 dollars.

Sources: Grattan analysis of Weragoda et al 2017; ABARES 2022a; and ABARES 2022b.

85. Rural Industries Research and Development Corporation (2016, p. 23).

86. Oo (2022).

87. Cameron and Greenville (2022, p. 7).

88. Grattan analysis of ABS (2016, Equivalised disposable household income).

3.2 Impacts on business would be very small

The costs to business of our recommendations would be concentrated in certain industries. That's because about 45 per cent of the value of fuel tax credits is paid to businesses in the mining industry, and 88 per cent goes to just five of 19 industries: mining, agriculture, transport, construction, and manufacturing.

But the actual increment to business costs would be extremely small.

Grattan Institute analysis indicates that the impacts on business costs of our recommendations would generally be at or below 1 per cent for most business types in these five industries.

Such impacts are comparable to or lower than normal fluctuations in fuel prices. It is not unusual for the price of diesel to fluctuate by 30 cents per litre between years (Figure 3.3), and it has also been pretty volatile over the very long term.⁸⁹ By contrast, we recommend reducing fuel tax credits by 22.1 cents per litre for heavy on-road vehicles.

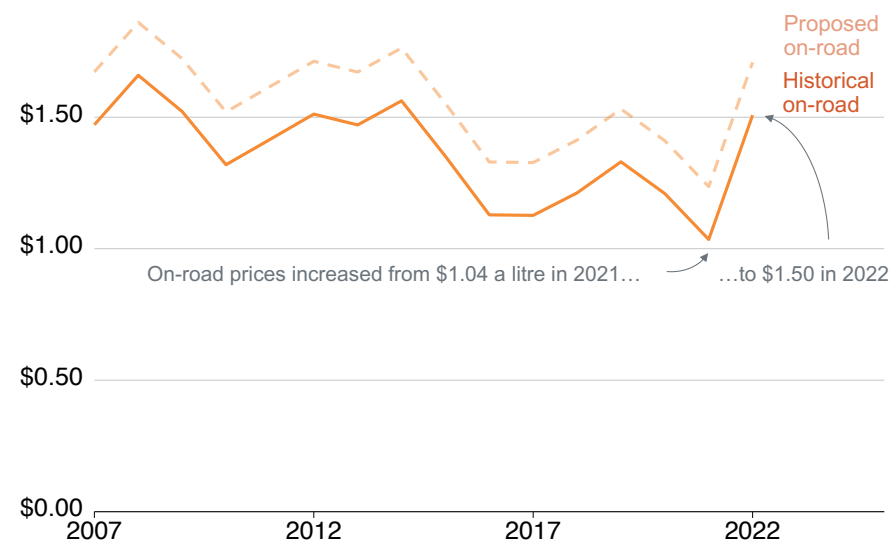
The following two subsections focus in more detail on the expected impacts on two business segments of particular concern: small transport businesses, and exporters.

3.2.1 Many smaller businesses don't claim fuel tax credits

While the increase in business costs would generally be small, larger average increases to costs are likely to occur in the transport, postal, and warehousing industry, particularly for micro, small, and medium-sized businesses (Figure 3.4 on the following page).

On the one hand, the true situation may be less concerning than the data would suggest, because, in reality, small businesses mostly don't claim fuel tax credits.

Figure 3.3: There have always been big fluctuations in the price of fuel
Average annual diesel prices, historical and with our proposed reduction in credits



Notes: Historical annual average national prices paid by eligible businesses operating vehicles heavier than 4.5 tonnes on public roads, reported in 2022 dollars. Price is the national average bowser price, minus GST and with the average annual fuel tax credit applied, but before further tax deductions are applied to the remaining cost of fuel. In March 2022 the fuel excise was halved for six months, reducing the average price for that year.

Sources: ATO 2014; ABS 2022a; Australian Institute of Petroleum 2022; ATAP 2022; ATO 2022b.

89. BITRE (2016, p. 3).

In the five key industries for fuel tax credits, the great majority of large businesses, with turnover of \$100 million or more per year, claim credits. In agriculture, mining, and transport, almost all such large businesses claim. By contrast, only a tiny minority of small firms, with turnover up to \$200,000, claim fuel tax credits (Figure 3.5 on the next page).

This effect is particularly striking in the transport, postal, and warehousing industry, where almost none of the many businesses with turnover up to \$50,000 per year claim fuel tax credits, whereas almost all of the very few businesses with turnover of more than \$100 million claim credits.

There are several circumstances where businesses cannot claim fuel tax credits, and these may apply more commonly to smaller than larger businesses. One is where they are operating vehicles weighing 4.5 tonnes or less, since the diesel used in these vehicles does not attract fuel tax credits. And even if they are operating vehicles heavier than 4.5 tonnes, business operators may not claim fuel tax credits because their trucks are pre-1996.⁹⁰ Operators can only claim credits for pre-1996 trucks if they meet the pre-1996 maintenance or emissions criteria, as explained in Section 2.2.2.

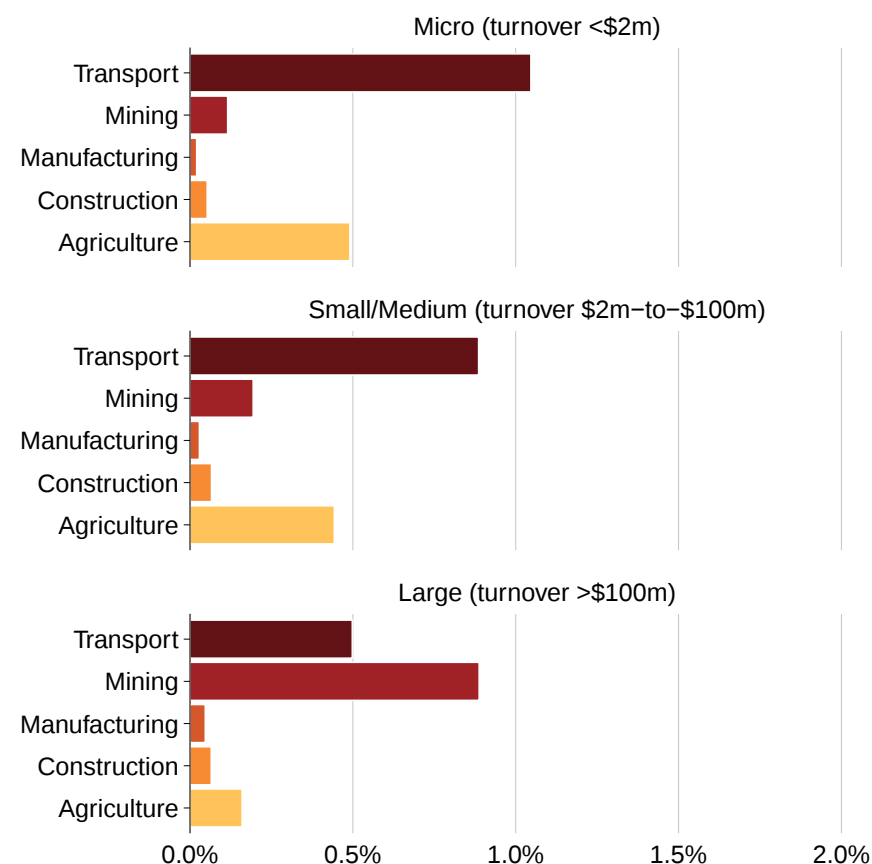
The effect is similar for mining: the few mining businesses that are particularly large all claim credits, while only 9 per cent of mining businesses with turnover less than \$50,000 per year claim.

On the other hand, however, small transport, postal, and warehousing businesses could be negatively affected, because the industry operates on tighter margins and has higher rates of churn than some other industries in Australia.

Of 19 industries in Australia, the transport industry has the highest rates of business entry and exit. In June 2019, more than 25 per cent

90. National Transport Commission (2021, p. 61).

Figure 3.4: The average increase in costs for business would be small
Estimated increase to costs, by industry and business size



Notes: Expenses adjusted to 2020-21 dollars. Assumes 70 per cent of the value of credits in the transport, postal, and warehousing industry, and 2 per cent for all other industries, is for on-road use. This sums to the total on-road share of credits, which is estimated to be 16.4 per cent.

Source: Grattan analysis of ABS 2019 with ATO 2021b.

of businesses in the transport industry had started within the past year, compared to about 17 per cent across all industries. And of existing transport businesses in June 2018, about one-fifth had closed-down by June 2019, compared with 13 per cent across all industries.⁹¹

High levels of business exit may reflect the low costs of starting a business, a lack of commercial sophistication by new operators leading to underquoting,⁹² and a high share of low-turnover firms, which are more likely to close down,⁹³ among other reasons. Business exits were much more likely for newer firms, and firms with lower turnover.⁹⁴

Many trucking businesses also report difficulty passing on fluctuations in costs, particularly smaller operators.⁹⁵ More businesses report that they can pass on increases in the price of fuel, at 34 per cent, than can pass on increases to registration charges, at 16 per cent.

Agriculture and mining, by contrast, have below-average rates of business exits.⁹⁶

Given these concerns, the government should phase in a reduction in credits in such a way as to help small businesses adapt. It could do this by implementing a reduction in the fuel tax credit, while at the same time offering a time-limited grant scheme, transparently on-budget, to affected businesses. Since the vast majority of transport companies have turnover below \$2 million per year, and their average annual claim is \$8,336 (and for agriculture it is \$5,768), such grants should be

91. We report the 2019 financial year to reflect the period before COVID, but rates do not vary substantially across years. Across four years to June 2022, the annual entry rate for transport was 25 per cent, and the exit rate was 20 per cent. Across all industries, the entry rate was 17 per cent, and the exit rate was 13 per cent.

92. Korda Mentha (2012).

93. ABS (2022c).

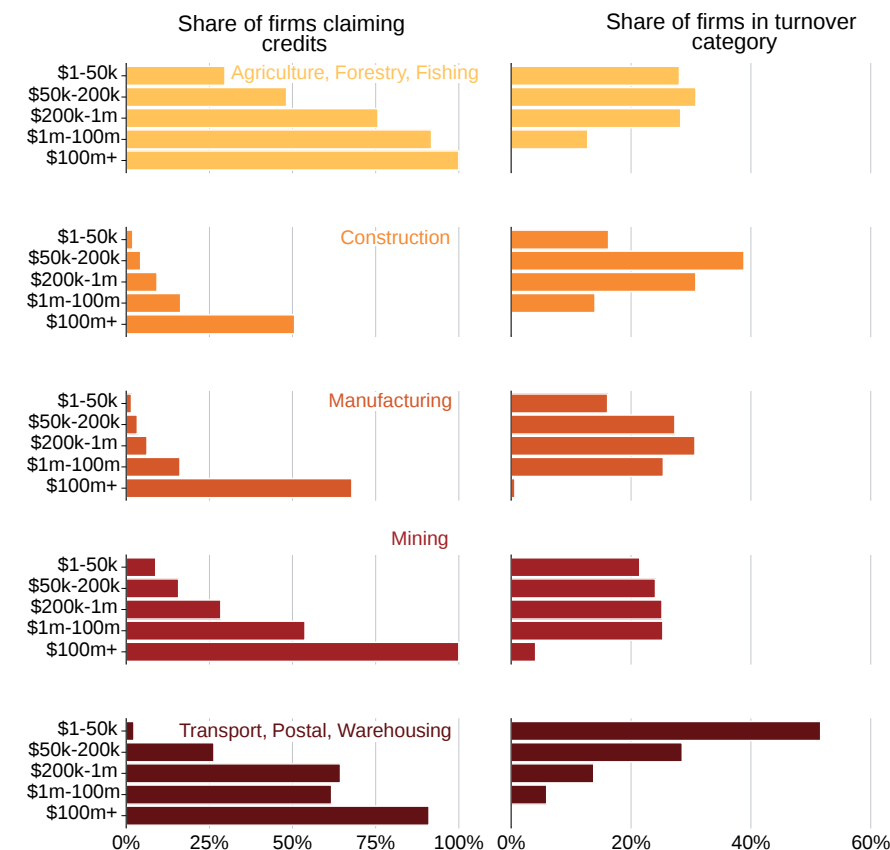
94. Ibid.

95. Australian Trucking Association (2016).

96. ABS 2022c and ABS 2022d. These averages might mask important differences between businesses within each industry.

Figure 3.5: Larger businesses are much more likely to claim credits

Share of businesses, by industry and turnover band



Note: Shares of firms claiming credits should be treated as approximations only, due to differences in counting practises between datasets.

Source: Grattan analysis of ABS 2019 and ATO 2021b.

capped at \$10,000 per business in the first year, \$7,000 in the second year, \$3,000 in the third year, and zero thereafter.⁹⁷

This would provide sufficient time for businesses to factor increased prices into their contracts and cash-flow management,⁹⁸ protect smaller and newer businesses which are more marginal, but retain most of the budget saving. Monitoring would be required to ensure businesses did not restructure to claim additional grants during the transition period.

A slower implementation could be achieved by halting the indexation of fuel tax credits, while retaining indexation of the fuel tax rate. Naturally this would have a delayed impact on the structural deficit in the federal budget, but it would allow businesses plenty of time to adapt.

Since the final price of fuel would increase by a standard amount across the industry, price increases should not affect the relative competitiveness of any business. As shown in the previous section, the small nature of these cost increases would mean that even a full pass-on of costs would have only a tiny impact on the prices faced by consumers.

3.2.2 Exporters would still face a low effective carbon price by global standards – for now

Fuel tax credits are substantially directed to export industries. Mining businesses receive 45 per cent of credits, and export the great majority of their products;⁹⁹ while agriculture businesses receive about 12 per cent, and export about 70 per cent of their products by value.¹⁰⁰

97. ATO (2021b).

98. The industry says fuel tax credits are used by many operators to manage their cash-flows, because the fuel expense and credit occur in different time periods: Wright 2022.

99. Minerals Council of Australia (2022).

100. ABARES (2022c, p. 6).

The usual tax orthodoxy is that if Australia increased its domestic tax on an exported good, there would be a reduction in the quantity of that good exported, because Australian businesses generally do not determine the price at which they sell goods and services overseas. But because the increase in domestic tax that our recommendations imply is very small, the reduction in the quantity of goods exported would also be expected to be very small.

In the particular instance of a reduction in fuel tax credits, the expected small reduction in the quantity of exports is of limited concern for two reasons.

First, Australia's implied carbon tax on fuel is very low by international standards (Figure 3.6 on the following page). Australia's implied tax on fuel per tonne of carbon from fuel is in the bottom quarter of OECD countries for both on- and off-road use.

Second, the writing is on the wall for the advantage that fuel-intensive Australian exporters currently enjoy. Countries are increasingly instituting mechanisms to push economic activity towards lower-emitting practices. For instance, nearly all OECD countries have committed to net-zero emissions by 2050, and the organisation's International Programme for Action on Climate supports countries' efforts to strengthen and coordinate their climate actions.¹⁰¹ This is important because OECD countries are the destination for about 35 per cent of Australia's exports.¹⁰²

Major markets including the EU, the UK, the US, and Canada – destinations for more than 10 per cent of Australian exports – are already adopting or planning to adopt policies known as Carbon

101. OECD (2021).

102. ABS (2021c).

Adjustment Border Mechanisms, or CBAMs.¹⁰³ CBAMs impose a tax at the border on the carbon content of certain imported goods, with the goal of putting producers on a level footing regardless of the carbon taxing regime in their country. Europe's CBAM is explained in Box 6 on the next page.

Back in 2009, there was support for some level of assistance going to emissions-intensive trade-exposed industries in Australia, to prevent 'carbon leakage' – production moving offshore to countries with higher emissions intensity of production.¹⁰⁴ The latest planned reforms to the Safeguard Mechanism include \$600 million in funding for trade-exposed businesses to reduce their emissions, and concessions for a small number of highly affected businesses.¹⁰⁵

3.3 Fuel tax credits are a political gift

It is difficult to avoid the conclusion that fuel tax credits have been conceived as a political gift.

In 1999, the Nationals' then federal leader John Anderson said fuel tax credits were intended to reduce transport costs, particularly for

those people living in regional, rural, and remote areas, where transport costs are a significant part of the cost of living and doing business.¹⁰⁶

In 2004, the then minister for industry, Ian Macfarlane, said fuel tax credits were:

103. Trade data from ABS (2021c); see UK Environmental Audit Committee (2021), European Parliament (2022), Whitehouse (2022) and Government of Canada (2021) regarding policies in the EU, UK, US, and Canada, respectively.

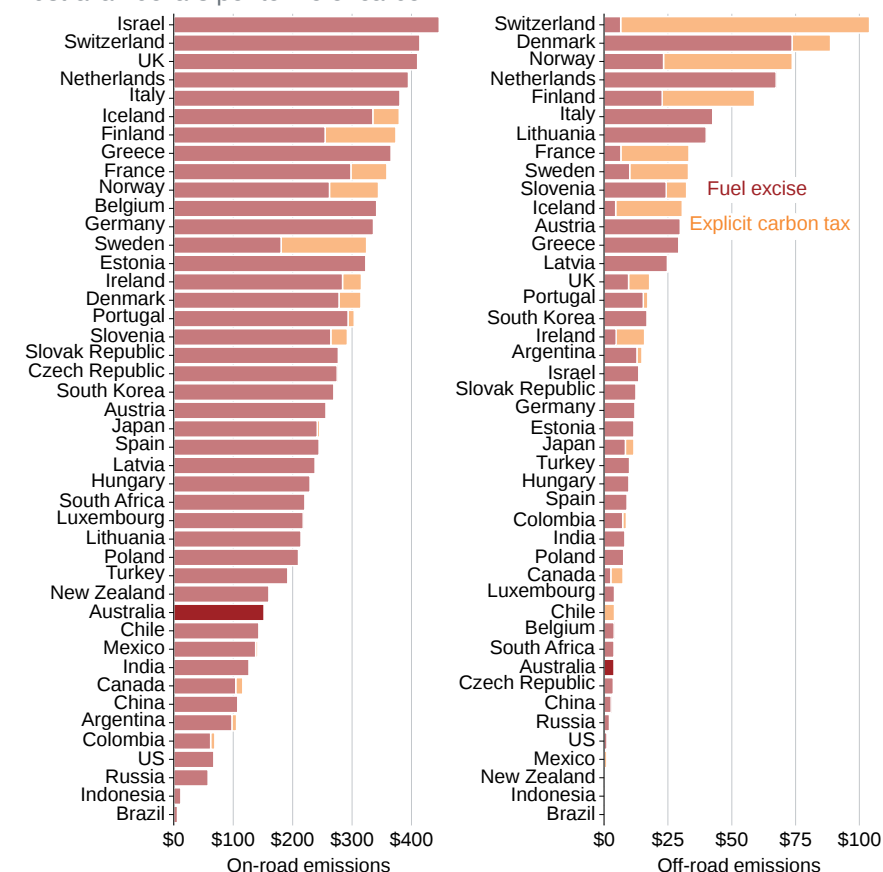
104. Wood et al (2022, pp. 19–22).

105. DCCEE (2023, pp. 41–48).

106. Anderson (1999).

Figure 3.6: By international standards, Australia's fuel taxes imply a very low per-tonne price on carbon

Australian dollars per tonne of carbon



Notes: Excludes emissions from biofuel. 2018 tax rates as applicable on 1 July 2018. Assumes full value of fuel excises is an indirect carbon tax.

Source: OECD 2019.

money in the pocket for thousands of rural businesses and consumers.¹⁰⁷

In 2006, the then assistant treasurer, Peter Dutton, introduced the latest iteration of the credit, and said:

The new fuel tax credit system will... remove the burden of fuel tax from thousands of individual businesses and households. This is good news for business and regional Australia in particular.¹⁰⁸

But despite repeated claims that credits benefit regions, there is no evidence that fuel tax credits deliver substantial benefits to regional Australia. In fact, the Fuel Tax Inquiry noted that:

no analysis has been undertaken to establish the benefits to rural and regional areas of the tax concessions and whether they could be achieved at lower cost by other means.¹⁰⁹

And more than 60 per cent of businesses in the top-five industries that receive the vast majority of credits are in major cities, where two-thirds of their employees are also based.¹¹⁰

Most small businesses, whether rural or otherwise, do not benefit from fuel tax credits, and to the extent that fuel tax credits are a political gift, it is large businesses that benefit.

If supporting the mining industry, and/or directing funds to regional areas, are the real goals, this should be weighed up against more targeted measures to achieve these goals, and also against the pressing need to tackle the structural budget deficit.

107. Macfarlane (2004).

108. Dutton (2006).

109. Trebeck et al (2002).

110. ABS (2019) and ABS (2022e).

Box 6: The European Carbon Border Adjustment Mechanism

In December 2022, the European Parliament agreed to place a levy on the embedded carbon content of certain imports, a policy known as a Carbon Border Adjustment Mechanism, or CBAM. The CBAM puts European producers, who face a higher carbon price, on a fair footing with producers in other countries, who face a lower or no carbon price. The goals are to prevent 'carbon leakage', to counteract the advantage that some countries give to their carbon-intensive exports, and, more broadly, to encourage cleaner industrial production in non-European countries.^a

The CBAM is being phased in between 2023 and 2026, and initially will apply just to electricity, iron and steel, cement, aluminium, fertilisers, and hydrogen.^b It is part of Europe's commitment to reduce carbon emissions by 55 per cent by 2030.

CBAMs require the price of carbon to be disentangled from other taxes on fuel, such as fuel excise, which increases the price of emitting carbon but is not an explicit carbon tax.^c

Support for CBAMs is growing: they are being negotiated in major markets, including the UK, the US, and Canada.^d Alternative trade mechanisms to combat carbon leakage include a global minimum carbon price,^e and the creation of 'climate clubs' with mutual agreements on decarbonisation.^f

a. European Parliament (2022).

b. European Commission (2023).

c. The EU has been reluctant to recognise fuel taxes as a carbon price.

d. UK Environmental Audit Committee (2021); Whitehouse (2022); and Government of Canada (2021).

e. Advocated by the International Monetary Fund and World Trade Organisation.

f. For example, the proposed US-EU Carbon-Based Sectoral Arrangement on Steel and Aluminum Trade aims to establish common definitions of low-carbon steel through mutual trade arrangements: White House (2021).

Appendix A: How we estimated user charges for light business vehicles

This appendix shows how we estimated how much a user charge for light business vehicles would be, if light business vehicles were charged the same way as heavy vehicles for their share of road maintenance and construction costs.

Our estimate is that the required per-litre charge for light business vehicles would be 32 cents per litre.

This estimate is derived by dividing the total fuel consumed by light business vehicles by the total amount to be recovered from light business vehicles.

Total fuel consumed by light business vehicles

Total fuel consumed by light vehicles in 2018-19 was 26.4 billion litres.

Total amount to be recovered from light business vehicles

The National Transport Commission estimates the amount of the revenue that should be collected from registration fees and road-user charges. It estimated that the cost base for heavy vehicles (that is, the amount they cost in road maintenance and construction) in 2018-19 was \$3.7 billion, or 22 per cent of the total. The cost base for light vehicles was therefore \$12.9 billion (78 per cent).

The component of the total cost base covered by registration fees was \$7.5 billion in 2018-19. Heavy vehicle registration fees were \$1.5 billion. Light vehicles registration fees were therefore \$6 billion.

The gap between the light vehicle cost base (\$12.9 billion) and the registration fees paid by light vehicles (\$6 billion) in 2018-19 was \$6.9 billion. This was the amount that should be recovered through a road user charge.

The required per litre charge for cost recovery in 2018-19 therefore was 6.9 billion (dollars) divided by 26.4 billion (litres), which amounts to 26.1 cents per litre.

Between 2018-19 and 2020-21, the cost base for heavy vehicles increased by 24.1 per cent. This would have led to an increase in the per litre road use charge for light vehicles to 32 cents per litre in that year, if transport ministers had accepted the recommendation of the National Transport Commission to reflect that increase in an increased road user charge.

This is an average across all light vehicles, and may not perfectly reflect the costs for light vehicles that are used for business purposes.

Appendix B: How we estimated the budget saving

This appendix shows how we estimated the budget saving associated with our proposal.

Share of fuel tax credit expense for on- and off-road use

In 2020-21, the road user charge is estimated to have raised \$1.9 billion. At the time, the road user charge was 25.6 cents per litre, implying that about 7.4 billion litres of fuel were used on-road by businesses eligible for the credit.

The fuel tax credit rate for on-road vehicles in that year averaged 16.7 cents per litre. The total amount of fuel tax credits for on-road is therefore \$1.2 billion. This is 16.4 per cent of the total amount of credits (\$7.8 billion). The remaining 83.6 per cent relates to off-road use. We assume that this ratio holds in all future years.

Cost saving in the 2022-23 financial year

In 2022-23, the total cost of credits for on-road users was \$1.3 billion (16.4 per cent of \$7.8 billion). Under our proposal, the on-road credit is reduced to 0, so the government saves this full amount. For off road-use, the total cost of credits was \$6.5 billion (83.6 per cent of \$7.8 billion). Under our proposal, off-road users would receive a reduced fuel tax credit, down from 46.85 on average cents per litre to 24.75 cents per litre. This reduces the expense by 48 per cent, or \$3.1 billion.

This results in a total cost saving of \$4.4 billion.

Tax deductions

Assuming an average marginal tax rate of 30 per cent, tax deductions on the additional fuel expenses incurred by businesses would reduce the total fiscal saving to about \$3 billion in 2022-23. This number is

lower than usual because the temporary halving of the fuel excise also reduced the amount of fuel tax credits.

Savings in future years

For future years, we use the same method described above, and Treasury's estimated fuel tax credit expenses for a given year. We index our proposed taxation rates to CPI. This results in an estimated saving of \$3.9 billion in 2023-24, \$4.1 billion in 2024-25, and \$4.4 billion in 2025-26.

Charging at the full 'externality' cost

If businesses' fuel was taxed at the full rate of the costs that their use of that fuel imposes on the community, as detailed in Chapter 3, the total fuel tax paid by heavy vehicles used on-road should be 61.8 cents per litre. This would result in an additional \$0.8 billion per year in budget savings, after accounting for additional tax deductions.

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