Parliamentary Budget Office

Budget explainer, 21 September 2022[1]

Fuel taxation in Australia

Executive summary

- In Australia fuel tax is collected as a tax on the production or importation of fuel, offset by a system of tax credits for fuel used by businesses on activities other than driving on public roads.. This explainer sets out the key features of what is a complex system of taxation and tax credits that affects both the revenue and expenditure sides of the budget.
- The excise and customs duty on petroleum fuel (referred to here as *fuel tax*) is one of the oldest taxes in Australia, applying since Federation in 1901. For some of that time there has been a link between the amount of excise raised and road funding. The formal link to road funding most recently ceased in 1992. Since then, fuel tax has been a general revenue-raising tax with only a minor link with the Australian Government's overall level of road funding.
- Australia has a relatively low fuel tax rate compared with most other OECD countries.
- There are two main parts to the fuel tax system. First, fuel tax is collected from the producers or importers of fuel when fuel leaves their depot or terminal (the terminal gate); and second, a system of fuel tax credits (FTCs), which refund fuel tax to eligible businesses so they are not taxed on fuel used as a business input.
  - FTCs are worth around 39% of the total tax collected.
  - Three quarters of FTCs are paid to businesses in the mining industry; the transport, postal and warehousing industry; and the agriculture, forestry and fishing industry.
  - Neither households nor businesses are eligible for FTCs related to fuel for driving vehicles weighing less than 4.5 tonnes on public roads. Businesses which use heavier vehicles on public roads may claim FTCs, but are also subject to a smaller 'road user charge' (RUC).
- The FTC system means that fuel tax is mostly paid by household users of fuel.
- Adjustments to the fuel tax arrangements have been used to address cost of living pressures associated with rising fuel prices. The most recent instances were during 2022 and 2026.
  - These measures provided temporary relief from higher prices for households, but the operation of the FTC system means that they provided limited relief to businesses.

[1] Minor updates to the text published on 19 October 2026

Basic features of the fuel tax system

The fuel tax system covers all petroleum fuels, with a range of rates and exemptions. For simplicity, the analysis in this explainer looks principally at petrol and diesel, which account for around 90% of fuel excise collections and share a common excise rate per litre.

The fuel tax system has two main parts:

- Excise and excise equivalent customs duty, which is a tax imposed on producers and importers of fuel, where the tax is collected at the point where fuel leaves the refinery or storage depot. Excise is indexed every six months to movements in the CPI with adjustments made in February and August.
- Fuel tax credits (FTCs), which are a budget expenditure that refunds some or all of the excise included in the price of fuel purchased by eligible businesses and which are used for a creditable purpose. Fuel tax credits refund over one third of the total fuel tax collected to businesses.

The rate of FTC paid to eligible businesses depends upon whether the fuel is used on a public road by a heavy vehicle or used for another creditable purpose:

- Fuel used on public roads to drive vehicles weighing less than 4.5 tonnes are not eligible to claim FTCs.
- Fuel used on public roads by heavy vehicles receives a partial FTC with the portion of the excise that is not refunded being a notional road user charge (RUC).
- Businesses using fuel for other purposes, such as in manufacturing or energy generation, receive a full refund of the fuel tax they have paid.

The RUC is set independently of the excise rate and is based on advice to the Minister for Transport from the National Transport Commission.

A key factor in the operation of the RUC is that the fuel excise rate needs to be higher than the RUC. This is because the RUC is imposed by reducing the FTCs payable to heavy transport operators, and once FTCs are reduced to zero there is no mechanism for imposing further increases in the fuel-based RUC.

More information on particular terms is provided through links to the glossary throughout this explainer denoted by the clickable links.

Introduction

Petroleum fuel sold in Australia is taxed under both the petroleum fuel excise and the goods and services tax (GST). Fuel excise included in the price of fuel purchased by business users for creditable purposes is refunded through a system of FTCs, with the result that fuel taxes are mainly a tax on household consumption of fuel. This explainer explains what the various parts of the Australian fuel taxation system are and how they impact on the budget. The explainer is relatively technical because it aims to provide a comprehensive description of a system that is often described only in part.

Fuel excise – quick facts

Excise revenue:

2021-22 revenue $18.2 billion (3.2% of total 2021-22 Budget revenue).[2]

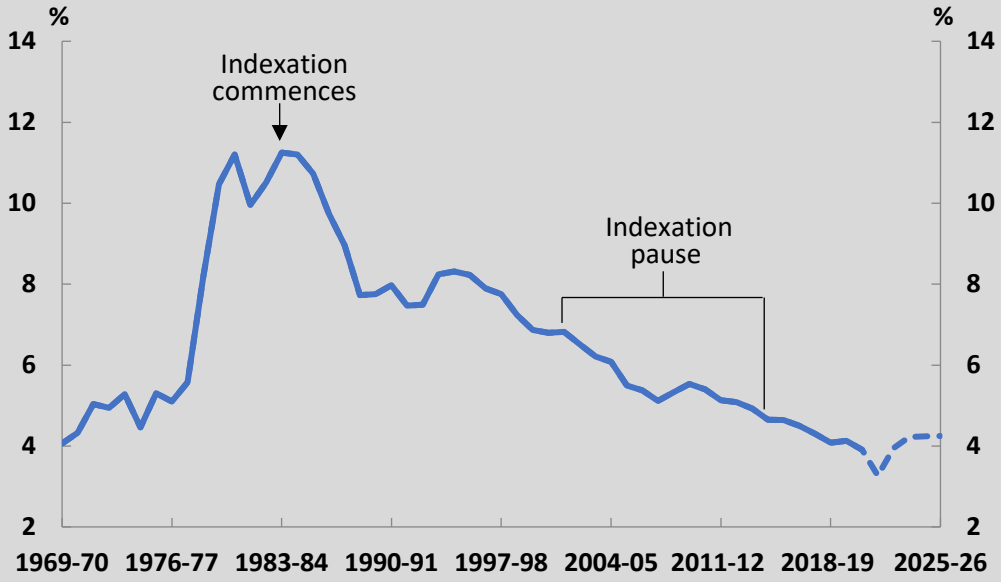
Fuel tax credits:

2021-22 expense $6.89 billion (1.1% of total 2021-22 Budget expenses).[3]

Trends in fuel tax revenue

Fuel excise has declined as a proportion of Australian Government revenue over the last 40 years (see Figure 1 below), under pressure from increasing fuel efficiency and higher fuel prices (as well as the rise and fall of Australian crude oil production in the 1970s and 1980s). Revenue is expected to recover to pre-pandemic levels over the next few years following the end of the temporary 6-month halving of excise rates. Beyond that, it is likely that excise will continue to be eroded by factors such as more fuel-efficient vehicles and increasing take up of electric vehicles (on and off public roads).

Figure 1: Fuel excise as a proportion of total receipts



Source: Reserve Bank of Australia, Occasional Paper No. 8, 2004-05 Budget, and 2022-23 Budget.

[2] Estimate, Budget 2022-23 Paper No. 1. Page 129. This figure was affected by the 2022-23 Budget measure *Temporarily reducing fuel excise*.
[3] Estimate, Budget 2022-23 Budget Paper No. 1. Page 144.

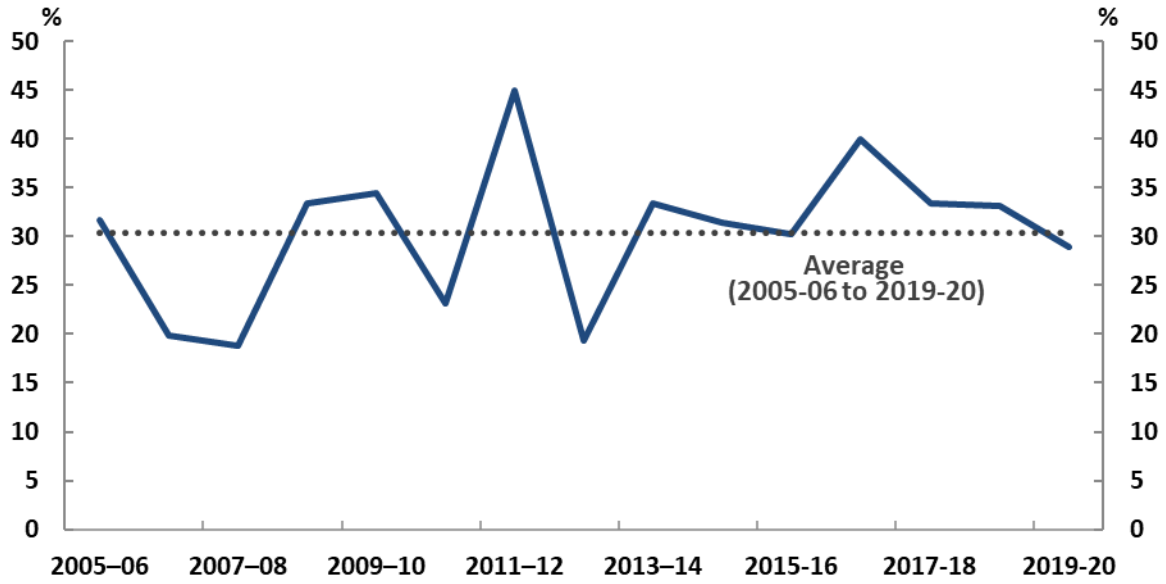
The excise and customs duty on petroleum fuel is one of the oldest tax bases of the Australian Government, applying since Federation in 1901. There have been numerous changes to petroleum taxation since Federation, involving changes in fuels covered, rates, exemptions, credits and indexation arrangements. A short history of petroleum taxation based on material from the 2001 *Fuel Tax Inquiry* – updated for more recent developments – is provided in Attachment A.

Internationally, most countries impose some form of tax on fuel. In some countries, taxes on fuel include an explicit carbon tax component (this is not the case in Australia). Analysis by the OECD in Attachment B shows that Australia has a relatively low rate of fuel excise compared to most countries.[4]

For some periods in the history of petroleum excise collection, the revenue has been earmarked for funding roads and the rate of the excise was set with this in mind. This has involved arrangements at various times to either exempt off-road fuel use (particularly for agricultural use), or to refund the excise collected, in full or part, to certain users.

The formal link between petroleum fuel excise and roads funding most recently ended in 1992. Since then, the overall Australian Government spending on roads has been set independently of excise revenue, and the role of petroleum excise has been to contribute to the broader budget. Figure 2 shows that Australian Government road spending has not followed movements in fuel tax over the last 15 years. In this period, while the ratio of Australian Government road spending to fuel tax revenue has averaged around 30%, it has varied substantially, mainly due to changes in road spending.

Figure 2: Australian Government road spending as a proportion of total fuel tax



Source: PBO analysis of Bureau of Infrastructure, Transport and Regional Economics (BITRE) Yearbook 2021: Australian Infrastructure and Transport Statistics, Statistical Report and 2022-23 Budget.

[4] Taxing Energy Use 2019: Using Taxes for Climate Action | OECD iLibrary (oecd-ilibrary.org)

Partial hypothecation was re-introduced in 2014 with the re-introduction of fuel excise indexation.[5] This involved the Australian Government paying an amount equal to the net revenue from reintroducing fuel excise indexation to a special account for payment to the States and Territories for road infrastructure.[6] Since 2012, the amount hypothecated under this arrangement has grown reaching more than $1 billion (about 5.5% of fuel excise) in the 2021-22 financial year.[7]

The FTC system that refunds the excise included in the price of fuel to eligible business users has different levels of credit depending upon whether fuel is used on or off-road. Details of this system are outlined further below.

What elements make up Australia's fuel tax system?

Excise

Excise is collected at the point where fuel leaves a designated storage depot, with the excise paid by the manufacturer or importer and remitted to the Australian Taxation Office, mostly on a weekly basis.[8] Fewer than 50 businesses pay fuel excise, which means that collection of the tax is relatively simple. The principal purpose of fuel excise is to raise revenue for the budget.

Fuel excise is indexed every 6 months, in February and August, to upwards movements in the consumer price index (CPI).[9]

Fuel tax credits

Fuel tax credits (FTCs) refund this excise to eligible business users of fuel, which ensures that the excise does not contribute to the prices of products.

FTCs are usually fully refunded to businesses for fuel used for activities that don't involve driving on roads. These activities often include the operation of non-vehicle machinery such as generators, pumps, kilns and manufacturing equipment.

FTCs are also usually fully refunded to businesses for fuel used for vehicles driving on non-public roads or business premises, such as a warehouse, farm or a site for mining or construction.

Fuel used for driving vehicles on public roads[10] is generally not eligible for FTCs, regardless of if the travel is for business or private use, with the main exception being fuel used by heavy vehicles, being those with a gross weight of at least 4.5 tonnes.

---

[5] 'Hypothecation' refers to the formal quarantining of particular revenue streams to fund particular programs.
[6] As part of the reintroduction of fuel excise indexation, the *2014-15 Budget* included a measure to establish a *Fuel Excise (Road Funding) Special Account* under which amounts equal to the net revenue from reintroducing indexation on customs and excise duties on fuel are transferred to the COAG Reform Fund to provide funding to the States and Territories for expenditure in relation to Australian road infrastructure investment.
[7] Fuel Indexation (Road Funding) Special Account Determination 2022, Federal Register of Legislation, www.comlaw.gov.au (accessed 9 September 2022)
[8] Most fuel excise is reported and paid on a weekly basis. However, small businesses with aggregated turnover less than $10 million ($50 million from 1 July 2021) can report and pay their excise obligations monthly.
[9] The excise rate is held constant in the event of negative growth in the CPI (section 6A of the *Excise Tariff Act 1921*)
[10] Including toll roads, see Travelling on public roads | Australian Taxation Office.

Operators of heavy vehicles may claim FTCs for the fuel used for driving the vehicles on public roads, but at a reduced rate (see the next section).

The economic rationale for refunding fuel excise to businesses is that imposing general revenue raising taxes on business inputs is economically inefficient.[11]

With businesses claiming FTCs, which refunds the fuel excise previously paid, most tax on fuel is paid by households. Note, however, that if FTCs were not available to businesses then several consequences would follow, including:

- The additional cost of the fuel excise would be largely passed onto households through higher prices, such that households would still bear the cost of the tax.
- Businesses using petroleum in creating products may be disadvantaged compared to foreign businesses making competing products elsewhere without fuel excise as an input cost.
- Businesses exporting products to a global market at a fixed global price would be forced to absorb the additional cost from the tax, rather than pass it on through prices.

Heavy vehicle road user charge

The reduction in the FTCs for heavy vehicles on a public road is a road user charge (RUC). This charge aims to ensure that the operators of heavy vehicles pay their share of the cost of constructing and maintaining roads.

The RUC is sometimes referred to as 'notional' because it is collected through the excise included in the price of fuel rather than by directly charging heavy vehicle operators. The RUC is equal to the amount of the fuel excise that is not refunded to the business through FTCs. A consequence of collecting the RUC in this way is that the fuel-tax-based RUC cannot exceed the excise rate. If the RUC is set at a level higher than the excise rate, the FTC is reduced to zero and the notional RUC paid is limited to the excise paid.

For example, consider a road haulage business that uses one million litres of fuel in a year to drive large trucks. Fuel excise tax of $537,000 was paid on the fuel when it was imported to Australia, at the rate of 53.7 cents per litre. The business can claim fuel tax credits at a rate of 21.3 cents per litre for the fuel used to drive the heavy vehicles, or $213,000. The remaining amount, of $324,000, is not refunded to the business, and is notionally denoted as the RUC.

The RUC is set independently of the fuel excise rate. To ensure national consistency, any change in the RUC rate is considered alongside state and territory heavy vehicle registration fees as part of the annual pay-as-you-go (PAYGO) heavy vehicle charge setting process. The calculation of the heavy vehicle share of government road expenditure costs and charge rates is performed by the National Transport Commission (NTC) who apply pricing principles designed to efficiently recover the cost of providing road infrastructure for heavy vehicles. Ultimately it is the Transport Minister that determines the RUC charge rate.

[11] A tax on goods or services can be argued to be efficient if household demand does not vary much in response to the impact of the tax, that is the tax does not distort consumer choices. On the other hand, the same tax on business inputs may distort the consumption choices of final household consumers because the tax impacts in varying degrees on a wide range of goods and services that are consumed by households, many of which may have demand that is much more price sensitive.

The budget does not recognise the RUC as revenue, but as lower expenses than if the FTCs were claimed at the full rate.

Fuel used for driving vehicles weighing under 4.5 tonnes on public roads is generally not eligible for FTCs, which is equivalent to the application of a 'road user change' for this driving equal to the full amount of fuel excise, rather than the reduced rate for heavy vehicles.

The collection of fuel taxes

Excise is an effective mechanism for collecting tax as it has only a few taxpayers and a clear taxing point, while FTCs adjust the impact on business to reflect a level of cost recovery. This approach can be a simpler and more effective system of cost recovery than a separate direct user charge, particularly if the system can be administered as part of general tax compliance. To this end, FTCs are claimed by businesses in their business activity statement (BAS).

Excise on aviation fuels (currently 3.556 cents per litre (CPL)) is used to fund the regulation of aviation safety, with all the excise revenue collected provided to the Civil Aviation Safety Authority.

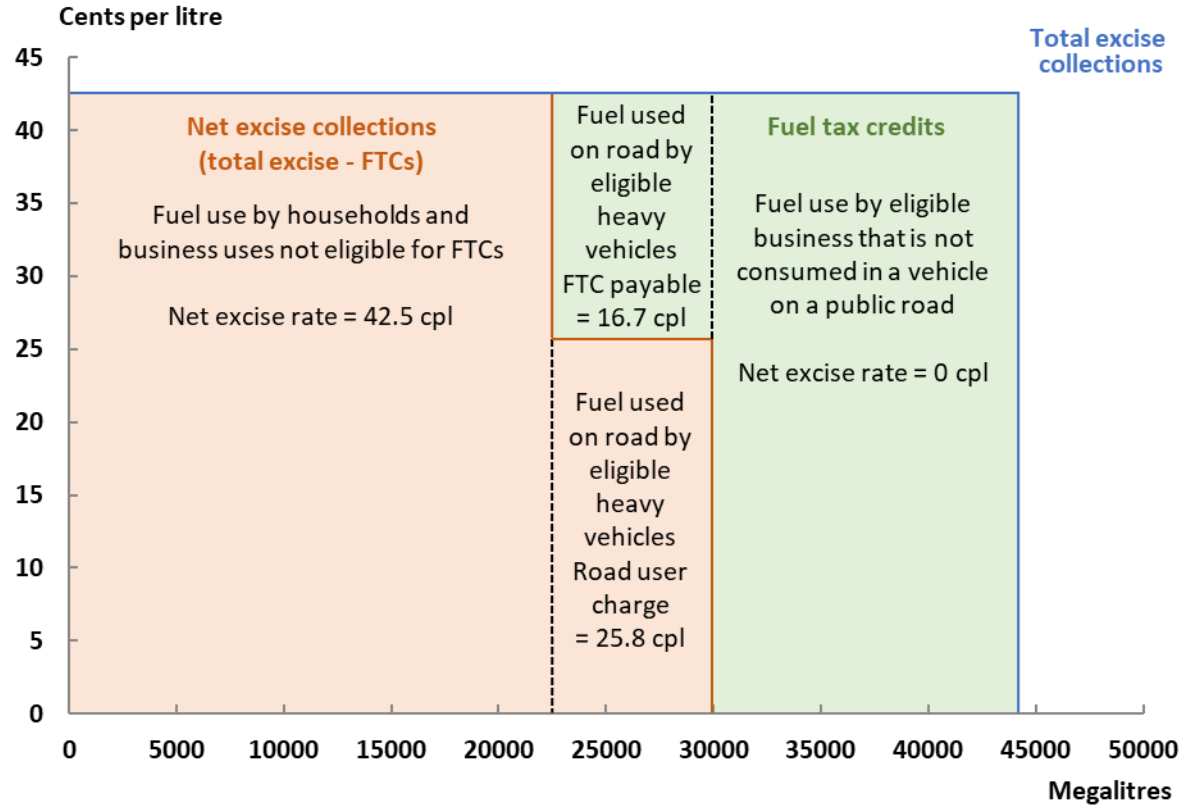
How much does the fuel tax system contribute to the budget?

Fuel excise contributes to tax revenue, with that contribution partly offset by expenditure on FTCs. Overall, the fuel tax system improves the budget position.

Figure 3 shows the relationship between fuel excise and FTCs, using the example of petrol and diesel fuel for the 2020-21 year.[12] The vertical axis is the excise rate in CPL and the horizontal axis is the volume of fuel subject to the excise in megalitres (ML). The total area of the box represents the total gross excise collected from manufacturers and importers of petrol and diesel in the year.

[12] Figure 3 uses 2020-21 estimates because more recent data are affected by the temporary 6 month halving of fuel excise rates announced in the 2022-23 Budget, which affects 2021-22 and 2022-23. For simplicity, the diagram is based on petrol and diesel only (excise tariff items 1005, 1010) as these account for around 90% of excise collections and are subject to the same excise rate per litre. The full range of excisable fuels is listed in Attachment C.

Figure 3: Excise and fuel tax credits (petrol and diesel), 2020-21



Note: Petrol and diesel include excise tariff items 1005 and 1010.

Figure 3 shows there is a significant difference between the gross excise collected from manufacturers and importers at the terminal gate and final net excise collections once FTCs are deducted. The total coloured area represents the value of excise collections from fuel importers and manufacturers (gross excise). Fuel tax credits are represented as the green shaded area. Excise collections net of FTCs are represented by the brown shaded area. Figure 3 shows that FTCs reduce the value of net fuel excise collections from petrol and diesel by around 39% compared with the amount of excise paid at the taxing point.

In 2020-21:

- Gross excise collected from manufacturers or importers on petrol and diesel was around $18.8 billion.
- Of fuel that was taxed at the 'terminal gate', 49% (by volume) received a FTC for part or all of the excise collected. Of this:
  - 17% of petrol and diesel was used on road and qualified for a partial FTC of 16.7 CPL.
  - 32% of petrol and diesel was used off public roads for creditable purposes and qualified for a full FTC averaging 42.5 CPL.
  - In total, fuel tax credits for petrol and diesel were an expense to the budget of $7.3 billion.

- 51% of petrol and diesel was ineligible for any FTC and was subject to the full fuel excise with excise collected on this fuel contributing $9.6 billion to the budget. This fuel was mainly consumed by households with the balance of non-household use attributable to light vehicles used on-road by businesses (the split between household and business use is not available).
- Overall, net excise collections (excise *less* FTC) on petrol and diesel were around $11.5 billion.

Table 1 provides further details of the excise and FTCs on diesel and petrol.

Table 1: Petrol and diesel 2020-21 – Excise and FTCs

	User type			
	Households and light business on-road vehicles	**Business users Heavy vehicles on road**	**Business users Off road**	**All Users**
Volume (ML)	22,500	7,400	14,300	44,200
Excise rate (CPL)	42.5	42.5	42.5	
Excise collected ($m)	$9,600	$3,100	$6,100	$18,800
FTC rate (CPL)	0.0	16.7	42.5	
FTC expense ($m)	$0	$1,200	$6,100	$7,300
Net excise ($m)	**$9,600**	**$1,900**	**$0**	**$11,500**
RUC (CPL)	0.0	25.8	0.0	
RUC component ($m)	$0	$1,900	$0	$1,900

Source: PBO analysis of ATO data.
Note: Petrol and diesel include excise tariff items 1005 and 1010. The positive amount in the RUC component represents lower FTC expense.

Other impacts on the budget

Timing of revenues and expenses

Fuel excise is payable by manufacturers and importers when fuel leaves their storage facility with most remitting the excise payable on a weekly basis. Businesses that consume fuel claim FTCs through their BAS, which they lodge monthly, quarterly or annually depending upon business size.

The fiscal balance impacts arise when the transactions that give rise to revenue or expenses occur, whereas the underlying cash balance impacts arise when payments of tax or credits are made. In practice, there is little or no difference between the fiscal balance and the underlying cash balance for fuel excise or FTCs as the liability and payment generally occur in the same accounting period.

In modelling the fuel tax system, it is important to consider that there are timing impacts that arise because of the differences between when fuel leaves the terminal gate, when it is sold to a business user and when that business claims a FTC for the fuel. Excise is payable when the fuel passes the terminal gate whereas FTCs are payable when a business user claims the credits in their BAS. This means that there will be a lag between fuel entering the marketplace, its use by a business and FTCs being claimed.

Revenue or expense, tax or non-tax?

Fuel excise is a tax and contributes to the revenue side of the budget.

FTCs are refundable tax offsets, which means that they can either be used to reduce the amount owed by a business in their BAS or, if the offset exceeds the amount owed, the business will receive a cash refund of the excess.

FTCs are treated as a budget expense rather than a reduction in revenue because they do not relate to tax actually paid by the taxpayer (the excise was paid by the importer or manufacturer of the fuel), and because the amount of the credits can be paid as a cash refund.[13]

The revenue and expenditure components of the fuel tax system are reported in *Budget Paper No.1, Budget Strategy and Outlook* each year. In the 2022-23 Budget, excise revenue is reported as a revenue item in *Statement 4: Revenue.* FTC expenditure is reported in *Statement 5: Expenses and Net Capital Investment* under the 'fuel and energy' sub-function.

FTC cannot be reduced below zero by the Road User Charge

The part FTC for fuel used on-road in heavy vehicles is calculated as equal to the excise paid per litre of fuel, reduced by the RUC.

This raises the question of what would happen if the RUC were to exceed the excise rate payable (either because of an increase in the RUC or a decrease in the excise rate). If this occurs the on-road FTC rate would be zero.

[13] See ABS 5514.0 Australian System of Government Finance Statistics: Concepts, Sources and Methods, 2015, Box 13.6, Chapter 13, Part L

Examples of situations where excise has either been reduced to a level lower than the RUC, or where the policy settings made this a possibility, are:

- The 2022-23 Budget measure *Addressing Cost of Living Pressures – temporary reduction in fuel excise,* temporarily halved fuel excise for 6 months – from 30 March 2022 to 28 September 2022. As a consequence, the excise rate for petrol and diesel fell to 22.1 CPL, below the prevailing RUC of 26.4 CPL. As the RUC exceeded the excise duty paid, this change meant that the partial FTC for heavy vehicles used on public roads fell to zero for the period of the excise reduction. This reduced the RUC that could be collected from 26.4 CPL to 22.1 CPL, providing heavy vehicle operators with a net benefit of 4.3 CPL compared with settings prior to the change.[14] Attachment E provides details of how this outcome came about.
- From 2001 to 2014 the twice-yearly indexation of the fuel excise rate was suspended at 38.14 CPL with the result that the difference between the RUC and fuel excise narrowed as the RUC was increased. As the RUC is set independently of the excise rate it was possible that the RUC could have been increased to the point where it exceeded the excise rate if the excise freeze had continued.
- The excise rates on LPG, CNG and LNG powered vehicles are below the RUC (even without the temporary halving of excise rates), meaning heavy vehicles using these fuels receive no FTCs. As excise rates are indexed, operators of such vehicles will pay the full increase in the excise rate. This compares with the FTC paid to operators of petrol or diesel powered heavy vehicles where, as long as excise is greater than the RUC, the FTC rate increases to offset excise indexation and leave the RUC unchanged.

A consequence of the interaction between the RUC and the excise rate is that businesses operating heavy vehicles on road are shielded from the effect of changes in the excise rate while the excise rate remain above the RUC.

Tax treatment of excise and FTC

Excise and fuel tax credits affect the income tax (personal income tax and company tax) calculations of businesses. Fuel purchases are a deductible business expense. Excise on fuel adds to this expense, while FTCs (and GST input tax credits) reduce it. The cost of fuel included in businesses' taxable income will equal the excise and GST inclusive pump price of the fuel less any FTC and GST input tax credits received. This means that the budget impact of changes in excise and FTC will be offset in part by changes in income tax (personal income tax and company tax) payable by businesses.

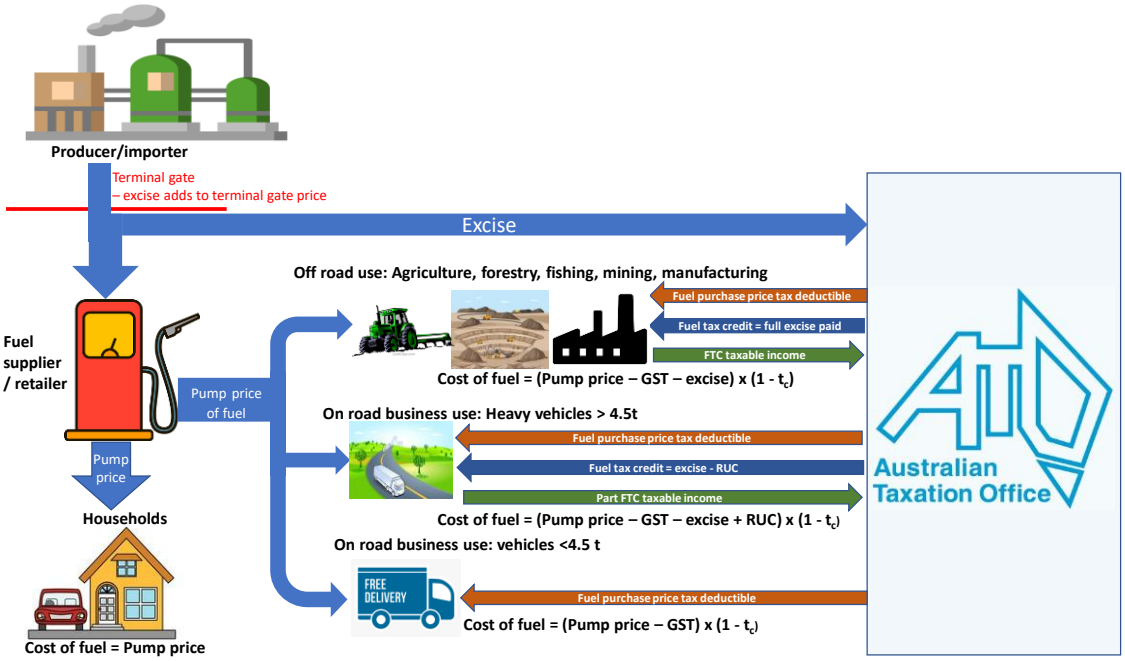
Figure 4 shows the determinants of the cost of fuel to households and different business users of fuel. Fuel is a private expense for households, so their cost of fuel is the full pump price (i.e. including excise and GST). The cost of fuel for businesses that use fuel for an eligible income producing purpose is the pump price less GST and FTCs, which is tax deductible. Decomposing the determinants of the FTC payable, this means that:

- for households the cost of fuel is the full GST-inclusive pump price

[14] From 30 March to 31 July, with the rate indexed on 1 August to 23 CPL. See Budget 2022-23 – Fuel excise fact sheet, Treasury 2022

- for businesses that use fuel for an eligible off-road use, the cost of fuel is equal to the pump price *less* the full excise paid *less* the GST input tax credit, and this cost reduces their taxable income[15]
- for businesses that use fuel in a heavy vehicle on road, the cost of fuel is equal to the pump price *less* excise *plus* the RUC *less* the GST input tax credit, and this cost reduces their taxable income
- for businesses that use fuel in a light vehicle, the cost of fuel is equal to the pump price *less* the GST input tax credit, and this cost reduces their taxable income.

Figure 4: Excise, fuel tax credits and the cost of fuel to users



Goods and services tax (GST)

Fuel is also taxable under the GST with the GST charged on the excise inclusive price of the fuel.

GST registered businesses can claim an input tax credit for the GST on the excise inclusive price in their BAS. GST nets out to zero for most businesses due to input tax credits which mean that there is generally no GST on business-to-business transactions.

Final consumers will be affected by the GST on fuel in two ways. Changes in the pump price of fuel will have a direct impact on final consumers through the GST payable on the fuel, and an indirect effect through the cost of GST taxable goods and services that use fuel as an input. The indirect impact arises because the final consumer pays GST on the full price of the goods or services supplied, including on the value of business inputs used (such as fuel). In this context, final consumers are households and businesses that make input-taxed supplies (supplies where the business does not remit GST but cannot claim input tax credits: mainly financial supplies, rental housing and some long term accommodation).

[15] Reducing the tax deduction has the same effect as including the FTC in assessable income (as depicted in Figure 4)

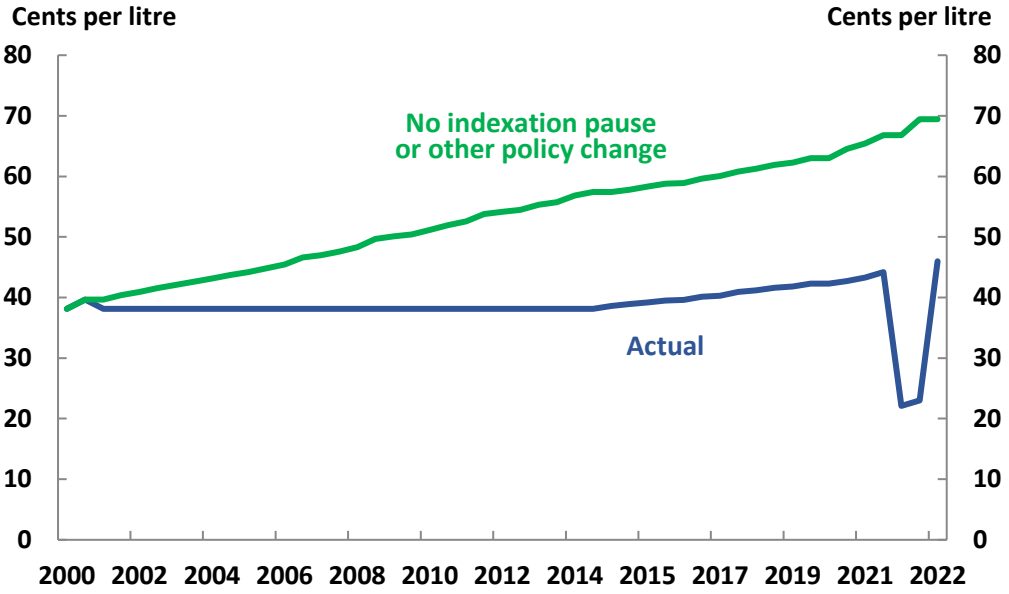
GST collections have no significant impact on the Australian Government Budget because all GST revenue (less administration costs) is paid to the states and territories. These payments are based on cash collections, with GST remitted 21 days after the end of each accounting period (monthly, quarterly or annually). This timing of remittances creates a timing difference between GST accounted for on a fiscal balance basis and that accounted for on an underlying cash balance basis.

Impact of excise changes on consumer prices and the budget

Automotive fuel is a component of the basket of goods used to measure CPI in Australia. Historically, the main short-term influence on the price of automotive fuel comes from factors such as global oil prices, with only a minor impact coming from the regular 6-monthly indexation of the excise rate.

The indexation of fuel excise is cumulative and has a greater impact over longer periods. This can be seen from Figure 5 which shows that the freeze in the fuel excise indexation from March 2001 to November 2014 reduced the excise rate by around one third compared with what would have been had there been no 1.5 CPL cut in excise and indexation pause.

Figure 5: Excise rates for petrol since 2000 – effect of policy decisions



Source: PBO analysis of ATO excise data and ABS Consumer Price Index.

The temporary 6-month halving of fuel excise in the 2022-23 Budget has had a substantial impact on the CPI, which in turn impacts on the budget through CPI indexed payment rates, tax rates and thresholds.

The temporary halving of fuel excise in the 2022-23 Budget meant that fuel prices in the June quarter 2022 were up to 24.3 CPL lower than otherwise would have been the case. [16,17] This amounts to a roughly 11% reduction in prices for automotive fuel which would have reduced the CPI by around 0.6 percentage points (all else being equal). Without the excise reduction, the June quarter CPI increase could have been as high as 2.4% in the June quarter 2022 instead of the 1.8% outcome.

When the temporary reduction in excise rates ends on 29 September 2022 the excise rate will increase to 46 CPL, increasing GST-inclusive fuel prices by 25.3 CPL. We can expect the CPI impact of the excise reduction will be unwound, increasing consumer prices (all else being unchanged) and reversing the budget impacts of the initial halving of excise.

How have past policy decisions impacted on the excise rate?

Figure 5 also shows the effect of policy decisions on the excise rate for petrol since 2000.[18]

The most significant policy was the decision on 2 March 2001 to cut excise by 1.5 CPL and pause indexation indefinitely. This decision significantly reduced real fuel excise rates over the period it operated and has resulted in an ongoing reduction in fuel excise of around 24 CPL with this amount growing in line with indexation increases.

Figure 5 also shows that the ongoing cumulative impact on excise rates from the 2001 to 2014 indexation pause is of about the same magnitude as the temporary reduction in the excise rate provided by the 2022-23 Budget measure, *Temporary reduction in fuel excise*.

The benefit of the lower excise rate under these measures mainly went to households and to business users of vehicles under 4.5 tonnes Gross Vehicle Mass (which do not qualify for FTCs).

Attachment D provides an illustration of the trends in excise collections, the impact of potential policy options and an analysis of how the system may be impacted by changes in demand for fuel.

Who gets the fuel tax credits?

Table 2 summarises FTC claims paid from the Australian Taxation Office, by broad industry group as well as the number of claimants and average claim value.

Table 2 shows that the largest proportion of FTCs are paid to businesses in the mining industry, followed by the transport, postal and warehousing industry and then agriculture, forestry and fishing. Collectively, these top three broad industry groups account for around three quarters of FTC payments. The mining industry has a high average claim value per claimant but relatively few claimants, whereas agriculture, forestry and fishing industry and the transport, postal and warehousing industry have lower average claims but much larger numbers of claimants.

---

[16] The 22.1 CPL excise reduction, combined with 10% GST. 24.3 CPL = 22.1 CPL x 1.1.

[17] The ACCC has monitored fuel prices following the halving of the excise rate. Their report can be found here. The ACCC concluded: "After 6 weeks, the influence of the lag between changes in wholesale prices and changes in retail prices had been incorporated into retail price movements, and the cuts to fuel excise had clearly been passed on to a large extent."

[18] The excise rate for diesel was temporarily affected by increases in excise associated with the transition to ultra-low sulphur diesel fuels.

Table 2: Fuel tax credits by broad industry group, 2020-21

Broad industry	Value of claims ($m)	Proportion of total (%)	Number of claimants	Average amount claimed ($)
A. Agriculture, Forestry and Fishing	913	12	85,073	10,731
B. Mining	3,397	45	1,555	2,184,874
C. Manufacturing	314	4	5,768	54,489
D. Electricity, Gas, Water and Waste Services	192	3	2,313	83,173
E. Construction	498	7	24,883	20,033
F. Wholesale Trade	126	2	4,717	26,754
G. Retail Trade	67	1	3,100	21,667
H. Accommodation and Food Services	11	..	1,237	8,782
I. Transport, Postal and Warehousing	1,451	19	35,678	40,664
J. Information Media and Telecommunications	2	..	150	15,958
K. Financial and Insurance Services	66	1	308	215,660
L. Rental, Hiring and Real Estate Services	55	1	2,921	18,693
M. Professional, Scientific and Technical Services	163	2	1,796	91,035
N. Administrative and Support Services	66	1	3,111	21,335
O. Public Administration and Safety	87	1	666	130,243
P. Education and Training	5	..	709	6,421
Q. Health Care and Social Assistance	2	..	308	6,648
R. Arts and Recreation Services	5	..	1,092	4,677
S. Other Services	49	1	2,660	18,401
Z. Other	5	..	32	145,916
Grand Total	**7,476**	**100**	**178,077**	**41,982**

Numbers may not sum due to rounding.

.. not zero but rounded to zero

Source: PBO analysis of ATO data.

Table 3 provides detail of FTC claims by businesses in the top 20 fine industry groups which gives an insight into which business activities claim the most credits and use the most fuel. The table shows the largest fuel tax credit claims are by the metal ore mining industry, followed by coal mining and road freight transport.

While FTC claims provide a general indication of the distribution of fuel use by industry, the claims data will significantly understate fuel used by businesses like those in the road freight transport and road passenger transport industries that are subject to the RUC. This is because the RUC more than halves the FTC claims of these businesses.

Table 3: Top 20 fuel tax claiming industries by fine industry, 2020-21

Fine industry	Value of claims ($m)	Proportion of total FTC claims (%)	Number of claimants	Average amount claimed ($)
080 Metal Ore Mining	1,291	17	230	5,614,463
060 Coal Mining	1,033	14	51	20,246,669
461 Road Freight Transport	670	9	23,973	27,930
099 Other Non-Metallic Mineral Mining and Quarrying	572	8	183	3,126,261
014 Sheep, Beef Cattle and Grain Farming	532	7	55,798	9,528
109 Other Mining Support Services	329	4	286	1,151,859
471 Rail Freight Transport	253	3	39	6,487,146
321 Land Development and Site Preparation Services	187	3	7,545	24,830
502 Pipeline and Other Transport	184	2	4,807	38,219
310 Heavy and Civil Engineering Construction	151	2	2,098	71,742
692 Architectural, Engineering and Technical Services	116	2	1,078	107,675
329 Other Construction Services	99	1	7,777	12,744
521 Water Transport Support Services	89	1	237	375,111
101 Exploration	80	1	167	480,358
015 Other Crop Growing	78	1	4,366	17,756
462 Road Passenger Transport	77	1	2,319	33,335
481 Water Freight Transport	68	1	190	355,367
292 Waste Treatment, Disposal and Remediation Services	66	1	989	66,798
203 Cement, Lime, Plaster and Concrete Product Manufacturing	66	1	846	78,068
624 Financial Asset Investing	62	1	150	411,861
Other industries	1,473	20	64,948	22,698
Grand total	**7,476**	**100**	**178,077**	**41,982**

Numbers may not sum due to rounding.

Source: PBO analysis of ATO data.

Attachment A: A brief history of fuel excise in Australia

Federation (1901) to 1929	Imports of diesel and petroleum products were subject to tariffs.
1929 to 1959	Excise on petrol was introduced to finance road funding. The revenue was hypothecated for this purpose until 1959.
1957	Excise was applied to diesel for the first time (for on-road use only) reflecting the hypothecation of all excises to road funding. Excise was not applied to diesel used in off-road activities.
1982	With the introduction of the Diesel Fuel Rebate Scheme all off-road users of diesel were required to pay excise, however some were eligible to claim for a partial or full rebate. A surcharge of 1 CPL was introduced to establish a roads program under the *Australian Bicentennial Road Development Trust Fund Act 1982*. Under this and other road funding legislation, the component of fuel excise directly linked to road expenditure varied during the 1980s (up to around 6 CPL).
1983	Indexation, in line with upwards movements in the CPI, was introduced for petroleum excise rates to maintain the real value of excise collections.
1992	Since 1992, successive Australian Governments have established road funding levels solely in the budget process and there has been no effective link between fuel excise and road expenditure.
1997	The Australian Government increased the excise rate by an amount equal to the highest State business franchise fees (BFF) and States established schemes to subsidise fuel by the difference between their former BFF and the amount of the excise increase. This followed a series of High Court cases that effectively meant that the states cannot impose excise.[19]
2000	The rate of excise on petrol and diesel was cut by 6.656 CPL with the introduction of *The New Tax System (Goods and Services Tax) Act 1999*.
2001	The excise rate was cut by 1.5 CPL and indexation of petroleum products excise rates was abolished. The 1.5 CPL excise reduction applied to all uses of petroleum fuels that attracted the full rate of excise duty, with products attracting a concessional rate receiving a proportional reduction. Abolition of indexation applied to all petroleum fuels with the exception of lubricants.
2009	Last State subsidy for petroleum fuels (Queensland) removed from 1 July 2009.
2014	Indexation of petroleum excise rates resumed (from 10 November 2014).
2022 (30 Mar - 28 Sep)	Petroleum excise rates were halved temporarily.

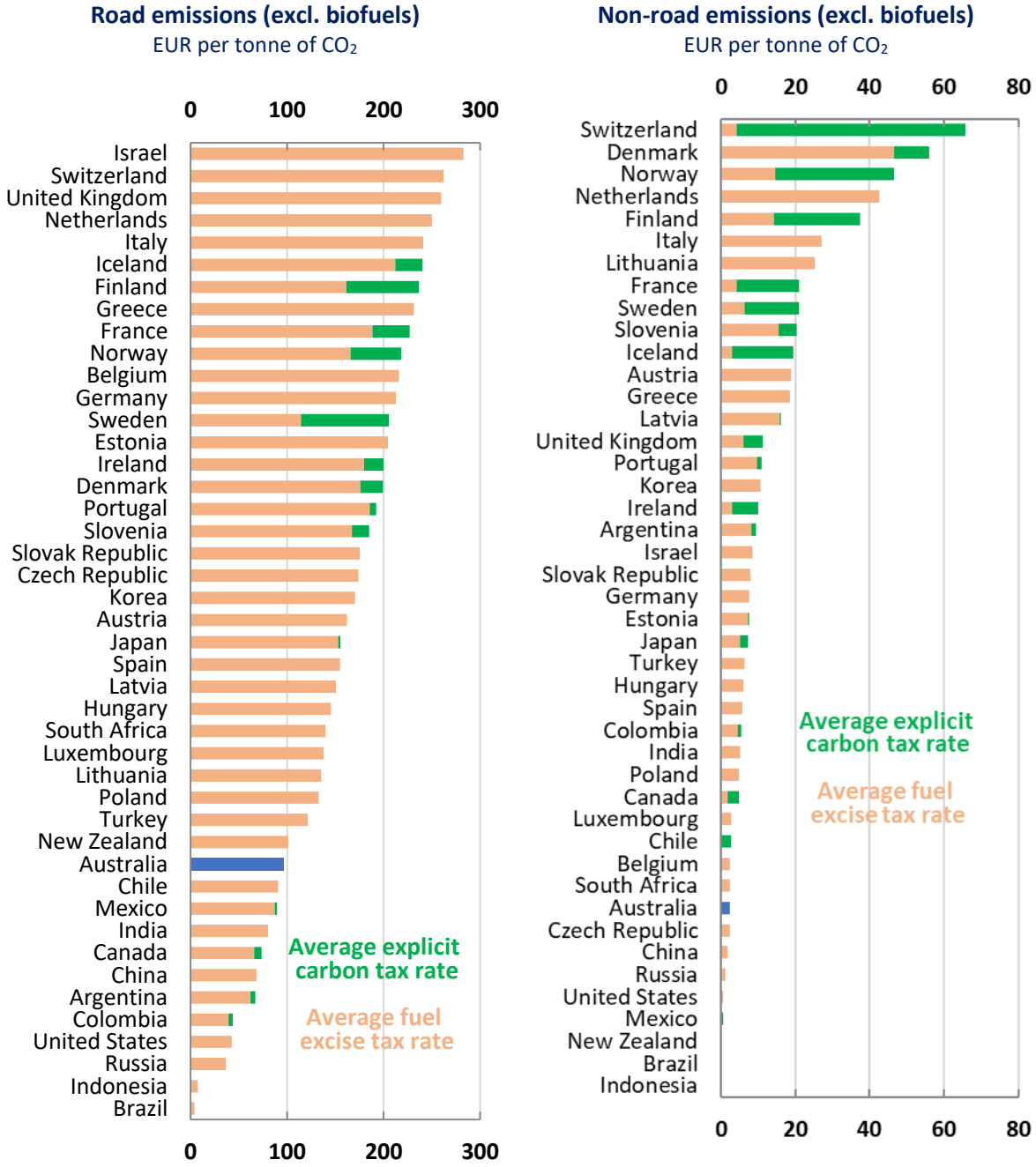
Sources:
Fuel Taxation Inquiry, *Issues Paper*, Box 5.1, Australian Government, August 2001
Queensland Treasury, *Fuel Subsidy Scheme*, Archived original, August 2009
M Cormann, *Transcript - Press Conference - Implementation Arrangements for Fuel Excise*, October 2014
2022-23 Budget, Australian Government, 2022

[19] Federalism Up in Smoke? The High Court Decision on State Tobacco Tax – Parliament of Australia (aph.gov.au)

Attachment B: International comparison of fuel taxation

The following chart based on OECD data shows Australia's relative ranking in terms of the level of fuel taxation and taxes on emissions from fuel. The chart shows that Australia has the 12th lowest level of fuel tax out of 44 countries for fuel used on road and is ninth lowest for fuel used for non-road purposes.[20]

Figure B1: Effective fossil carbon rates by country



Note: Excludes emissions from biofuels. 2018 tax rates as applicable on 1 July 2018. CO_2 emissions are calculated based on energy use data for 2016 from IEA (2018), World Energy Statistics and Balances. The scale of the horizontal axis differs between the two charts.

[20] Taxing Energy Use 2019 : Using Taxes for Climate Action | OECD iLibrary (oecd-ilibrary.org)

Attachment C: Petroleum products and recent movements in fuel excise rates

Tariff Item	Product	Units	Tariff Item Description	29-Sep-22	1-Aug-22	30-Mar-22	1-Feb-22
1001	Petroleum condensate	L		$0.4600	$0.2300	$0.2210	$0.4420
1002	Stabilised crude petroleum oil	L		$0.4600	$0.2300	$0.2210	$0.4420
1003	Topped crude petroleum oil	L		$0.4600	$0.2300	$0.2210	$0.4420
1005	Gasoline	L	Other than for use as fuel in aircraft	$0.4600	$0.2300	$0.2210	$0.4420
1006	Gasoline	L	For use as fuel in aircraft	$0.0356	$0.0356	$0.0356	$0.0356
1007	Blends of gasoline and ethanol	L		Free or Varies	Free or Varies	Free or Varies	Free or Varies
1010	Diesel	L	Other than biodiesel	$0.4600	$0.2300	$0.2210	$0.4420
1011	Blends of diesel and ethanol	L		N/A	N/A	N/A	N/A
1012	Blends of diesel and either biodiesel or ethanol, or both	L		Free or Varies	Free or Varies	Free or Varies	Free or Varies
1015	Heating oil	L		$0.4600	$0.2300	$0.2210	$0.4420
1016	Kerosene	L	Other than for use as fuel in aircraft	$0.4600	$0.2300	$0.2210	$0.4420
1017	Kerosene	L	For use as fuel in aircraft	$0.0356	$0.0356	$0.0356	$0.0356
1018	Fuel oil	L		$0.4600	$0.2300	$0.2210	$0.4420
1019A	LPG	L		$0.1500	$0.0750	$0.0720	$0.1440
1019B	LNG	KG		$0.3160	$0.1580	$0.1520	$0.3030
1019C	CNG	KG		$0.3160	$0.1580	$0.1520	$0.3030
1020	Denatured ethanol	L	For use as fuel in an internal combustion engine	$0.1500	$0.0750	$0.0720	$0.1450
1021	Biodiesel	L		$0.1080	$0.0540	$0.0440	$0.0880
1025	Liquid aromatic hydrocarbons	L	Principally benzene, toluene or xylene or mixtures of them (other than goods covered by 77J of the Excise Act 1901)	$0.4600	$0.2300	$0.2210	$0.4420

Tariff Item	Product	Units	Tariff Item Description	29-Sep-22	1-Aug-22	30-Mar-22	1-Feb-22
1026	Mineral turpentine	L	Other than goods covered by section 77J of the Excise Act 1901	$0.4600	$0.2300	$0.2210	$0.4420
1027	White spirit	L	Other than goods covered by section 77J of the Excise Act 1901	$0.4600	$0.2300	$0.2210	$0.4420
1028	Petroleum products (other than blends)	L	Other than goods covered by section 77J of the Excise Act 1901	$0.4600	$0.2300	$0.2210	$0.4420
1030	Other blended products	L	For use as fuel in an internal combustion engine	Free or Varies	Free or Varies	Free or Varies	Free or Varies
1501	Petroleum based oils	L	Includes synthetic equivalents	$0.0860	$0.0430	$0.0430	$0.0850
1502	Recycled petroleum based oils	L	Includes synthetic equivalents	$0.0860	$0.0430	$0.0430	$0.0850
1503	Petroleum based greases	KG	Includes synthetic equivalents	$0.0860	$0.0430	$0.0430	$0.0850
1504	Recycled petroleum based greases	KG	Includes synthetic equivalents	$0.0860	$0.0430	$0.0430	$0.0850
2001	Stabilised crude petroleum oil	KL	As prescribed by by-law	Free	Free	Free	Free
2002	Stabilised crude petroleum oil	KL	Delayed entry oil	Varies	Varies	Varies	Varies
2003	Stabilised crude petroleum oil	KL	Pre-threshold onshore oil	Free	Free	Free	Free
2005	Stabilised crude petroleum oil	KL	New oil	Free or Varies	Free or Varies	Free or Varies	Free or Varies
2006	Stabilised crude petroleum oil	KL	Intermediate oil	Free or Varies	Free or Varies	Free or Varies	Free or Varies
2007	Stabilised crude petroleum oil	KL	Other	Free or Varies	Free or Varies	Free or Varies	Free or Varies
2101	Condensate	KL	As prescribed by by-law	Free	Free	Free	Free
2102	Condensate	KL	Pre-threshold onshore condensate	Free	Free	Free	Free
2103	Condensate	KL	Other	Free or Varies	Free or Varies	Free or Varies	Free or Varies

Source: Data.gov.au, Historical excise rates and PBO analysis.

Attachment D: Estimating fuel excise and fuel tax credits over the medium term

The following charts provide the results of a simple medium term model of fuel taxation, from 2019-20 to 2032-33. The model looks at the relationships between excise and FTCs on diesel and petrol (tariff items 1005 and 1010) only and does not include adjustments for the timing of revenue or expenses. Changes in FTCs are assumed to occur in the same period as changes in the associated excise revenue, although in practice these are likely to lag excise collections by a month or more. The model does not include changes in GST or income taxes.

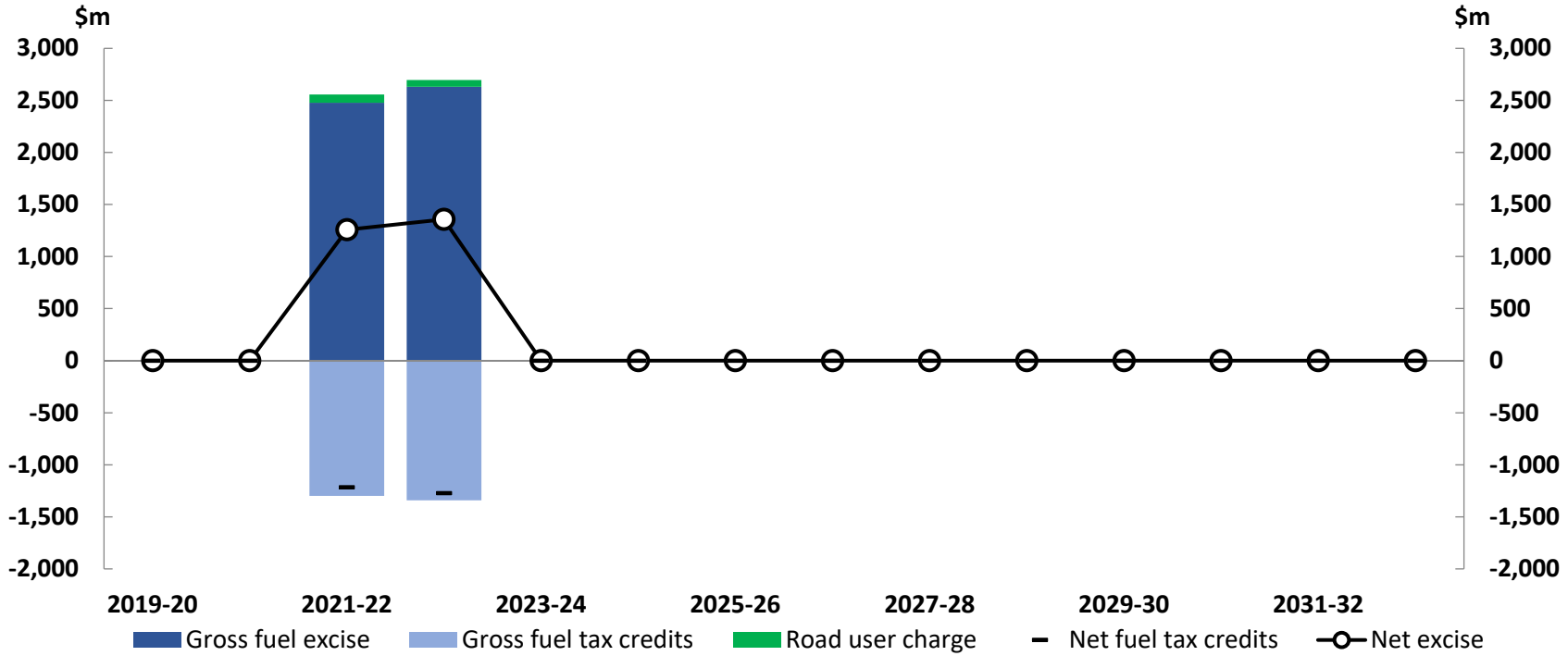
Figures D1 to D4 illustrate the changes in the fuel excise over the medium term and how the system would be affected by potential policy settings and changes in demand for fuel.

Positive values in the chart indicate an increase in the budget balance, negative values indicate a reduction.

The dark blue bars in the charts show gross excise collections, the light blue bars show gross fuel tax credits, which are offset to a small extent by the green bars which is the impact of the road user charge. The small black lines show the net FTC amount (FTCs less RUC) and the open circles show net excise collections (i.e. Gross excise collections less net FTCs). Fuel tax credits are shown with a negative value in the charts, as they are expenses and reduce the relevant budget balances. Similarly, the RUC is shown with a positive value as it reduces the value of FTCs paid and so increases the relevant budget balances.

Figure D1 shows the impact of the temporary halving of fuel excise included in the 2022-23 Budget for petrol and diesel by looking at the impact of reversing the measure relative to the 2022-23 Budget baseline. Reversing the temporary reduction would increase gross excise collections by about an eighth for each of 2021-22 and 2022-23.

Figure D1: Change in fuel excise and fuel tax credits, reverse the temporary reduction in fuel excise
Petrol and diesel

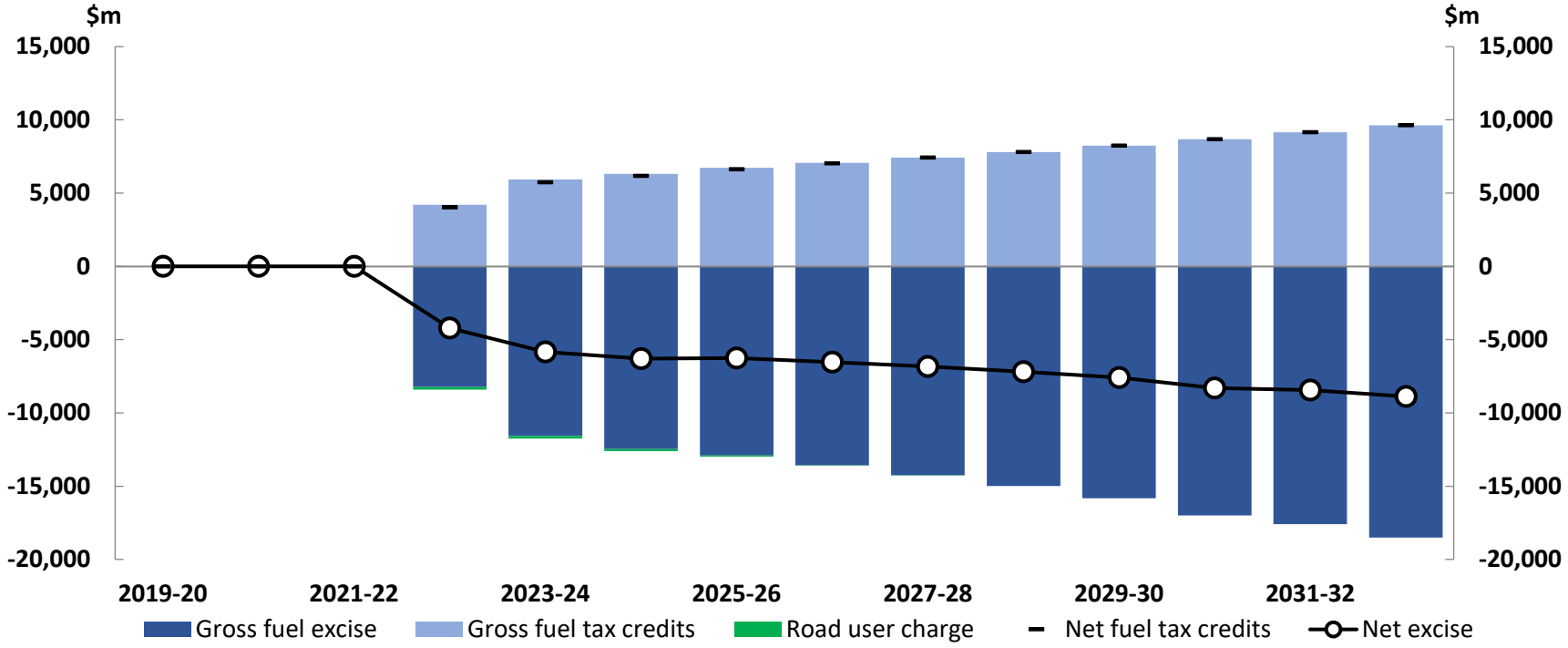


$m	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Gross fuel excise	0	0	2,500	2,600	0	0	0	0	0	0	0	0	0	0
Gross fuel tax credits	0	0	-1,300	-1,300	0	0	0	0	0	0	0	0	0	0
Road user charge	0	0	100	100	0	0	0	0	0	0	0	0	0	0
Net fuel tax credits	0	0	-1,200	-1,300	0	0	0	0	0	0	0	0	0	0
Net excise	**0**	**0**	**1,300**	**1,400**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Figure D2 shows the impact of extending the temporary excise reduction indefinitely. This would approximately halve net excise collections from 2023-24 onwards, with a lesser impact in 2022-23 as the change is a part year effect due to the reduction already included in the Budget estimates.

Figure D2: Change in fuel excise and fuel tax credits, continue 50% reduction in fuel excise

Petrol and diesel

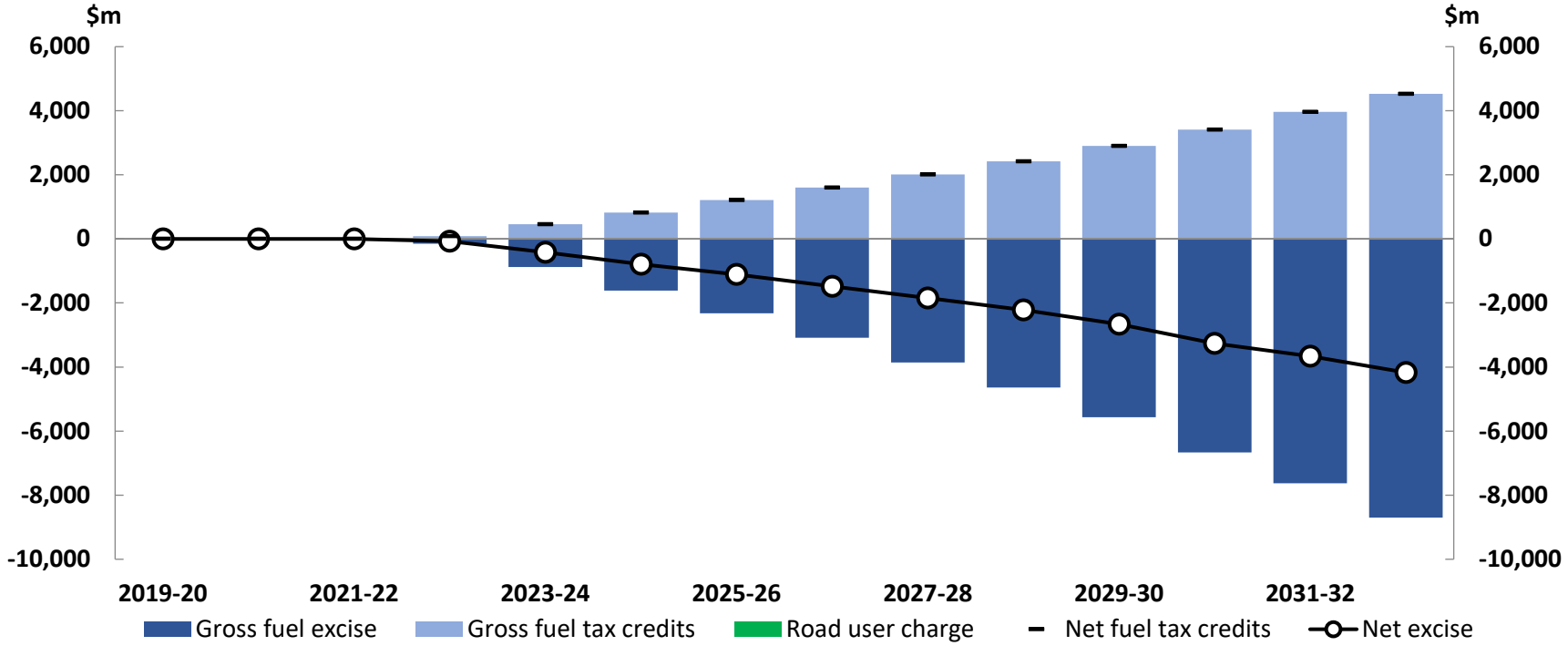


$m	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Gross fuel excise	0	0	0	-8,200	-11,600	-12,500	-12,900	-13,600	-14,300	-15,000	-15,800	-17,000	-17,600	-18,500
Gross fuel tax credits	0	0	0	4,200	5,900	6,300	6,700	7,100	7,400	7,800	8,200	8,700	9,100	9,600
Road user charge	0	0	0	-200	-200	-100	-100	0	0	0	0	0	0	0
Net fuel tax credits	0	0	0	4,000	5,700	6,200	6,600	7,000	7,400	7,800	8,200	8,700	9,100	9,600
Net excise	**0**	**0**	**0**	**-4,200**	**-5,800**	**-6,300**	**-6,300**	**-6,500**	**-6,800**	**-7,200**	**-7,600**	**-8,300**	**-8,400**	**-8,900**

Fuel excise indexation was paused from 2001 until 2014. Figure D3 shows the impact of freezing fuel excise indexation from 1 January 2023. The impact of an indefinite pause builds gradually over time, with the impact on net excise by 2032-33 being 44% of the impact of continuing the temporary reduction in the fuel excise rate.

Figure D3: Change in fuel excise and fuel tax credits, freeze excise rate from 1 January 2023

Petrol and diesel

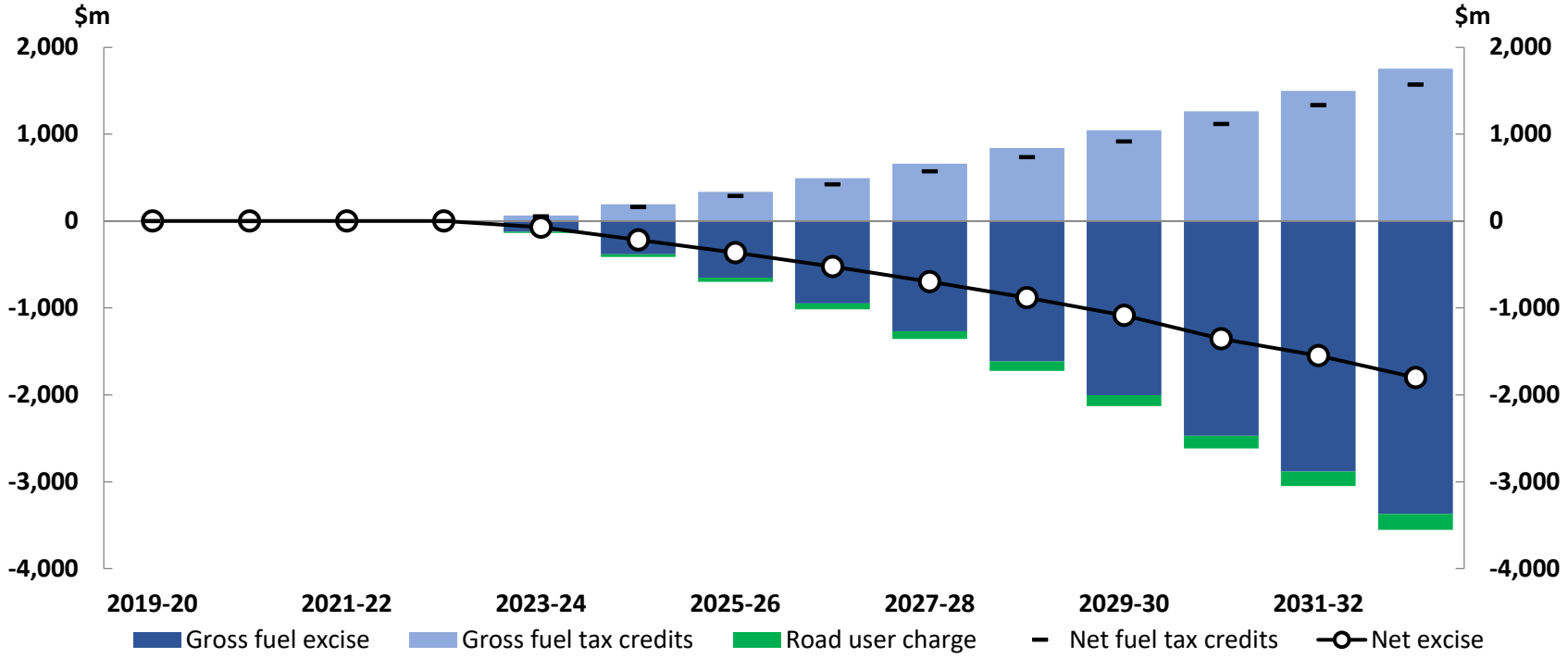


$m	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Gross fuel excise	0	0	0	-200	-900	-1,600	-2,300	-3,100	-3,900	-4,600	-5,600	-6,700	-7,600	-8,700
Gross fuel tax credits	0	0	0	100	500	800	1,200	1,600	2,000	2,400	2,900	3,400	4,000	4,500
Road user charge	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net fuel tax credits	0	0	0	100	500	800	1,200	1,600	2,000	2,400	2,900	3,400	4,000	4,500
Net excise	**0**	**0**	**0**	**-100**	**-400**	**-800**	**-1,100**	**-1,500**	**-1,800**	**-2,200**	**-2,700**	**-3,300**	**-3,700**	**-4,200**

Figure D4 shows the potential impact of increased fuel efficiency on fuel excise and FTCs beyond that built into the budget projections. This could arise from reduced fuel consumption due to changes such as moving to electric vehicles and reduced fuel consumption of new cars. The chart assumes a 1% reduction in fuel clearances per year from 2023-24. This would reduce net FTCS by around 10% by 2032-33 as the fuel excise base declines due to slower growth in fuel use.

Figure D4: Change in fuel excise and fuel tax credits, extra 1% reduction in fuel used from 2023-24

Petrol and diesel



$m	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Gross fuel excise	0	0	0	0	-100	-400	-700	-900	-1,300	-1,600	-2,000	-2,500	-2,900	-3,400
Gross fuel tax credits	0	0	0	0	100	200	300	500	700	800	1,000	1,300	1,500	1,800
Road user charge	0	0	0	0	0	0	0	-100	-100	-100	-100	-100	-200	-200
Net fuel tax credits	0	0	0	0	100	200	300	400	600	700	900	1,100	1,300	1,600
Net excise	**0**	**0**	**0**	**0**	**-100**	**-200**	**-400**	**-500**	**-700**	**-900**	**-1,100**	**-1,400**	**-1,500**	**-1,800**

Attachment E: The relationship between the Road User Charge (RUC) and Fuel Tax Credits (FTCs)

The 2022-23 Budget measure *Addressing Cost of Living Pressures – temporary reduction in fuel excise,* temporarily halved fuel excise for 6 months, from 30 March 2022 to 28 September 2022. The excise rate for petrol and diesel fell to 22.1 CPL, below the prevailing RUC of 26.4 CPL. As a result, the FTCs payable to the operators of heavy vehicles on public roads fell to zero. Because FTCs cannot be reduced below zero, the *effective* RUC fell to the new excise rate of 22.1 CPL, with the result that the road user charge paid by heavy vehicle operators fell by 4.3 CPL.

Table E1: Excise paid by businesses using fuel in heavy vehicles travelling on public roads

	Fuel Excise petrol & diesel	**FTC** partial Fuel Tax Credit for heavy vehicles	**RUC** Road User Charge	**Effective excise paid**
to 29 March 2022	44.2 CPL	44.2 CPL – 26.4 CPL = 17.8 CPL *FTC = excise duty – RUC*	26.4 CPL	44.2 CPL – 17.8 CPL = 26.4 CPL
from 30 March 2022 to 31 July 2022	22.1 CPL	22.1 CPL – 26. 4 CPL ≈ 0 CPL *FTC cannot be reduced below zero*	26.4 CPL*	22.1 CPL – 0 CPL = 22.1 CPL

* Although the RUC determined for this period was 26.4 CPL, it was effectively limited by the fuel excise rate to 22.1 CPL.

The situation of the excise rate for petrol and diesel falling below the RUC rate has not arisen previously but has been a theoretical possibility. Over the period from 2001 until 2014, when the fuel excise was not indexed but the RUC was increasing, there was a real possibility that the RUC could increase to a point where it exceeded excise, in which case there would no longer have been a mechanism for increasing the fuel-based RUC. The system only works as intended when the fuel excise is greater than the RUC and both are indexed at similar rates, in which case the RUC share of excise remains steady.

Attachment F: Glossary of fuel taxation terminology

Term:	Definition
Ad Valorem tax	An ad valorem tax is one that is applied to the value of a commodity produced or consumed. The GST is an ad valorem tax and is applied at a rate of 10% (or 1/11th of the GST inclusive price).
Business activity statement (BAS)	GST-registered businesses are required to lodge a business activity statement (BAS). The BAS covers a number of regular tax obligations of businesses, including: • goods and services tax (GST) • pay as you go (PAYG) instalments • PAYG withholding tax • other taxes (e.g. Fringe benefits, luxury car and wine equalisation tax). Businesses also use the BAS to claim FTCs. The GST reporting and payment cycle determines the frequency with which a business lodges a BAS. These are: • quarterly for businesses with GST turnover less than $20 million • monthly for businesses with GST turnover of $20 million or more • annually for businesses voluntarily registered for GST and with GST turnover less than $75,000 ($150,000 for not-for-profit bodies).
Creditable purposes (off public roads)	Fuels used by registered businesses may qualify for a fuel tax credit where they are used for a creditable purpose. Businesses can claim fuel tax credits **equal to the full excise paid** for eligible fuels they use in business activities (including in light vehicles), such as on private roads, off public roads and for non-fuel uses. Below are examples of fully creditable off public road business activities: • agriculture • fishing • forestry • mining • marine and rail transport • nursing and medical services • burner applications • electricity generation by commercial generator plant, stationary generator, or a portable generator • construction • manufacturing • wholesale/retail • property management • landscaping • dredging • panel beating • greenhouse heating • cement kilns • quarrying • industrial furnaces • non-fuel uses, including - fuel you use to clean machinery parts or drums - diesel you spray directly onto a road as a sealant - fuel you use as a mould release or as an input or ingredient – for example, printer inks, paint and adhesives.

Term:	Definition
Creditable purposes (on public roads)	Businesses can claim fuel tax credits for a portion of the excise paid on eligible fuels they use in heavy vehicles, including heavy emergency vehicles, travelling on public roads if the vehicle meets certain conditions. These include: • it is used in carrying on a business • it has a gross vehicle mass (GVM) greater than 4.5 tonnes (diesel vehicles acquired before 1 July 2006 can equal 4.5 tonnes). The credit that can be claimed is a partial credit, with the credit payable set equal to the excise paid *less* a road user charge. Eligibility to claim is also subject to other conditions such as meeting environmental conditions like noise and emissions standards.
Excisable fuels	Fuels subject to excise. See Attachment B for a list of excisable petroleum items and applicable rates (as at end July 2022).
Excise	Excise is a tax on the production of goods payable by the manufacturer when the goods pass a designated point in the supply chain. For fuel, the excise point is when fuel manufactured or imported into Australia passes the 'terminal gate' which is when the fuel leaves the manufacturer or importer's storage depot.
Externality	An externality is an indirect cost or benefit of an economic activity where the impact of the cost or benefit falls on a third party. In the absence of any corrective mechanism, the indirect cost or benefit is not reflected in the final price of the good or service produced. In the case of heavy vehicles using public roads, damage to public roads is a negative externality. Road user charging aims to include the cost of this externality in the price of heavy road transport services so that they are not subsidised to over-utilise roads and so they do not have an unfair advantage over other transport modes such as air, rail or sea.
Fiscal balance	The fiscal balance for a given financial year records revenue when it is earned and expenses when they are incurred, regardless of when any money is actually received or paid out during that financial year. For example, the fiscal balance records revenue from company taxes in the financial year a company earns the income even though it may not have to pay the tax until the following financial year. This accounting method is called accrual accounting and differs from the method used for another commonly used budget aggregate, the underlying cash balance, which is calculated on a cash accounting basis and records receipts and payments of cash when they occur.
Fuel tax credit (FTC)	A refundable tax offset that returns the excise paid on excisable fuels to eligible businesses. Businesses claim the FTC through their business activity statements. Different rates of FTC apply depending upon whether the fuel is used on a public road or not.

Term:	Definition
Goods and services tax (GST)	The GST is a tax on the supply of goods and services in Australia. All businesses with GST turnover (i.e. gross income from all businesses minus GST) greater than $75,000 must register for GST. The GST applies to the value of all supplies made in Australia. GST registered businesses are able to claim a credit for the value of GST included in the price of GST taxable inputs they receive (referred to as input tax credits). Input tax credits cancel out the GST imposed on business inputs, so for the most part, the GST is a tax on the final consumption of goods and services by households. In Australia GST applies under four broad regimes: • Fully taxable: The business imposes GST at 10% of the value of the supply (with the tax payable equal to 1/11th of the GST inclusive price) and claims input tax credits for GST included in the price of its inputs. • GST free: The business does not charge GST but claims input tax credits for GST included in the price of its inputs. No GST is included in the price of the final supply to households. This treatment applies to most food, education, health care, child care and exports. • Reduced rates: In some special cases, businesses may apply GST at a lower rate. For instance, long term accommodation in commercial premises (e.g. hotels, boarding houses) is taxable at 5.5%. • Input taxed: The business making the supply does not charge GST but cannot claim input tax credits for the inputs it uses to make the supply. This treatment mainly applies to financial supplies and supplies of rental housing.
Heavy vehicles	Heavy vehicles, including heavy emergency vehicles, are vehicles that have a gross vehicles mass (GVM) greater than 4.5 tonnes (diesel vehicles acquired before 1 July 2006 can be equal to 4.5 tonnes GVM). The GVM of a vehicle is the GVM accepted by the authority that registered the vehicle. Trailers cannot be included in the GVM of a rigid vehicle. For prime movers, the GVM is the gross combination mass – the mass of the vehicle and the trailer.
Households	A household consists of a person or a group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food. (Source: *ABS 5514.0* *Australian System of Government Finance Statistics: Concepts, Sources and Methods, 2015*)
Indexation	Indexation is a method of adjusting an economic variable by the movement in a price index to account for inflation. Petroleum fuel excise is indexed every six months, on 1 February and 1 August, to movements in the consumer price index (CPI) with the objective of maintaining the real value of excise collections.
Input tax credit	In the GST system, a credit that a GST registered business can claim that refunds the amount of GST included in the price of business inputs the business acquires. If the value of input tax credits exceeds the GST payable, the excess can be offset first against other tax liabilities of the business and then any further excess paid as a refund. Such refunds are counted as a reduction in GST revenue.

Term:	Definition
Price elasticity	The proportionate amount by which the consumption of a good changes in response to a change in the price of the good. For instance, if the price of a good increases by a 10% and consumption of that good declines by 5%, the price elasticity will be -0.5. • A good is described as being *price elastic* if the change in consumption is large relative to the change in price (e.g. an elasticity of -2 where consumption changes by twice the change in price). • A good is described as *price inelastic* if there is little or no change in consumption in response to a price change. Fuel consumption tends to be price inelastic, especially in the short term.
Refundable tax offset	FTCs are refundable tax offsets. Refundable tax offsets are payments to taxpayers administered through the taxation system where the amount of offset calculated is first applied to reducing a tax obligation of the taxpayer and, if the offset calculated exceeds the tax payable in the relevant period, the excess amount (up to the full amount of the offset) is paid to the taxpayer. This contrasts with a non-refundable offset, where the amount of the offset that can be applied is limited to the tax payable. Under Government Finance Statistics framework, refundable tax offsets are classified as expenses for Budget purposes, whereas non-refundable offsets are classified as reductions in revenue.
Road user charge (RUC)	The road user charge is the amount by which the FTC payable to the operator of a heavy vehicle (GVM > 4.5 tonnes) is reduced from the full excise rate. If the RUC exceeds the full excise rate, the FTC credit payable is zero (in which case the RUC paid would by default equal the full excise rate). The RUC is set in an annual determination by the Ministers for Transport and Infrastructure on the advice of the *National Transport Commission* as part of setting the RUC for FTC and heavy vehicle registration charges. The RUC is part of a national system heavy vehicle charges that includes the RUC on fuel as well as components based on annual vehicle license fees.
Tariff	Fuel excise is collected on imports as an excise equivalent tariff. A tariff is a tax on imported goods, generally applied at the border when those goods are cleared by Customs for entry into Australia. Most tariffs are ad valorem taxes (see above), however, tariffs on fuel and other excisable goods (e.g. tobacco and alcohol) are applied on a excise equivalent basis. This means that the excise equivalent tariff on petroleum fuel is imposed as a volumetric tax (see below) per litre of fuel.
Tax	Fuel excise is a tax. Tax revenue is government income that is collected from individuals, corporate entities and some other sources. Payment of tax is compulsory, and importantly, there is no direct link between the payment made to the government and the provision of goods or services by the government to the payee. All tax revenue is paid into the Consolidated Revenue Fund. Taxes do not include payments from an entity to the government in exchange for the provision of goods or services at a market price (or cost of provision). Fees for goods, services or regulation may be treated as a tax if the level of the fee is well in excess of the market value or cost of provision of the good, service or regulation concerned.

Term:	Definition
	Taxes may be levied on a range of things such as the earning of income, consumption or production of goods, property and wealth or just being there. The taxpayer can be an individual, company, trust, partnerships or a defined group.
Underlying cash balance (and headline cash balance)	The underlying cash balance and headline cash balance for a given financial year record the cash that is actually received or paid out by the government, regardless of when these amounts are incurred. For example, these balances record company tax paid to the government in a financial year even though the amount may relate to a company's earnings from a previous financial year. This accounting method is called cash accounting and differs from the method used for the fiscal balance, which is calculated on an accrual accounting basis, and records revenue when it is earned and expenses when they are incurred.
Volumetric tax	Fuel excise is imposed as a volumetric tax. A volumetric tax is one that is applied to the quantity of a commodity produced or consumed. Petroleum fuel excise (and most other excises in Australia) are volumetric. Excise on petroleum fuel is applied at a rate per litre of fuel.

References

Fuel Taxation Inquiry Committee (2002) *Fuel Taxation Inquiry*, Australian Government.

Webb R (2012) *Fuel tax credits: are they a subsidy to fuel use?*, Parliamentary Library, Australian Government.

Webb R (2000) *Commonwealth Road Funding Since 1990*, Research Paper 13 1999-2000, Parliamentary Library, Australian Government.

Department of Infrastructure (2022) *Portfolio Budget Statements, Budget 2022-23 – Civil Aviation Safety Authority*, Department of Infrastructure, Australian Government.

Organisation for Economic Co-operation and Development (OECD) (2019), *Taxing Energy Use 2019: Using Taxes for Climate Action*, OECD Publishing.

National Transport Commission (NTC) (2022) *Heavy vehicle charges consultation report*, NTC Australian Government.

Australian Government (2022) *Budget 2022-23*, Australian Government.

Australian Taxation Office (ATO) (2022) *Excise data,* ATO, Australian Government, accessed 29 August 2022.

Australian Taxation Office (ATO) (2022) *Taxation statistics*, ATO, Australian Government, accessed 13 September 2022.

Australian Bureau of Statistics (ABS) (June 2022) *Consumer Price Index*, ABS, Australian Government, accessed 29 August 2022.

Australian Competition and Consumer Commission (ACCC) (2022) *Monitoring fuel prices following the excise cut*, ACCC, Australian Government, accessed 1 September 2022.

Parliament of Australia (2015), *Fuel Indexation (Road Funding) Special Account Act 2015*, Australian Government.

Parliamentary Library (1997), *Federalism Up in Smoke? The High Court Decision on State Tobacco Tax*, Australian Government.

Federal Register of Legislation (2022), *Fuel Indexation (Road Funding) Special Account Determination 2022*, Federal Register of Legislation, Australian Government.

Bureau of Infrastructure, Transport and Regional Economics (BITRE) (2021) *Yearbook 2021: Australian Infrastructure and Transport Statistics*, BITRE, Australian Government.

Reserve Bank of Australia (RBA) (1996) *Australian Economic Statistics 1949-50 to 1994-95*, RBA, Australian Government.