Commission Meeting

7 August 2025

Melbourne — 9.00am – 4.00pm

Agenda

s 22 (1)(a)(ii)

[redacted]

5. Inquiries, Commissioned work and PC initiated research

5.1 Inquiry/commissioned work progress report discussions

s 22 (1)(a)(ii)

[redacted]

5.1.3 National Competition Policy 2025 road user charging – *Alex Robson and Catherine de Fontenay (11.30-12.00)* [p]

s 22 (1)(a)(ii)

[redacted]

[redacted]

[o] oral
[p] papers provided
^ circulated separately
* Paper to be circulated at meeting
** Paper available on request
# paper expected

Inquiry / Commissioned advice

National Competition Policy – Road User Charging

Matters for Commission consideration (e.g. background, significant scope changes; project engagement plans; decisions on analytical approach, findings, or recommendations etc.)	• This paper sets out, for noting by Commissioners: – the proposed scope for the road user charging project within NCP 2025. – the proposed process for engagement to inform this work.
Actions taken in response to previous CM (if applicable)	• The NCP 2025 Short Report, provided to government on 31 July 2025, indicates that the PC is considering road user charging in the context of NCP work.
Recommended action for Commission	That the Commission: **Notes progress and agree next steps as outlined**

Project timeline	**Key dates**	**Status**
Project start	July 2025	
Scoping discussion	7 August 2025	We are here
EBLs for Road User Charging	4 September 2025	
NCP Report, including Road User Charging, at CM	2 October 2025	
Project delivery to government	31 October 2025	
Project output released	TBC	

Provided by: Alex Robson, Catherine de Fontenay and the NCP team

Date submitted: 31 July 2025

Road user charging

Australia's current system of road user charging could be substantially improved with greater linkages between actual road use and the amount charged, to incentivise efficient use. The Productivity Commission has identified the gaps in the current framework and put forward an approach to reform in many reports (PC 2006, 2017, 2021, 2023).

As noted in *Shifting the Dial*:

> Roads are integral to the day-to-day functioning of cities and the economy. Like electricity, gas and water services, they are an essential service for most people. Roads help connect people to jobs, goods to markets, all suburbs within cities, and regional and remote areas to cities and beyond. The location and type of roads also shape developments around them. (PC 2017, p. 2)

While governments have acknowledged the need for reform, action continues to be slow. Technological change, leading to rapidly declining revenue from the current road user charging framework, appears to be providing greater focus from governments and an impetus for reform. In this context, further work from the PC on this issue provides an opportunity to identify priority areas of reform, while reinforcing principles on efficient charging and governance over government spending.

Project introduction and outline

From this work, we propose to deliver, including findings and recommendations where relevant:

- priority areas of reform to improve the efficiency of road user charging in Australia
- a clear summary of the current arrangements for charging road users and for funding road infrastructure
- advice on an effective governance framework over public expenditure on road infrastructure
- principles to underpin the development and implementation of road user charging, to incentivise efficient driver behaviour and investment in infrastructure
- practical implementation advice, including which level of government should charge for components of the road user charge (noting current views of constitutionality of charges)
- quantitative analysis to support our work.

In principle, user charges (prices) based on the efficient cost of provision should be used to fund road infrastructure. By giving drivers a clear signal about the cost of infrastructure they would have an incentive to use it more efficiently. Moreover, there will be a signal to infrastructure providers where changes in road capacity are warranted. For these reasons, the PC has recommended road user charging (and wider road infrastructure reform) many times in the past.

In addition to recovering the direct costs of road infrastructure, road user charging can also promote efficient decisions by recovering the external costs of road use. This makes road user charging a multifaceted problem. Targeting each external cost will require a multi-part charge, including both fixed and variable charges.

For example, fuel excise, the principal charge in the current framework is simple to administer. It is applied to a small number of producers or importers of fuel at the terminal gate. But it only indirectly addresses the direct and indirect costs of road use. For example, a relatively fuel-efficient vehicle pays comparatively less

fuel excise. This rewards lower emissions from reduced fuel use but may under-recover costs of road use from vehicle weight and distance travelled.

As these issues are inter-related, and apply differently to different types of vehicles, we are thinking of the impact and prioritisation of reforms as a matrix (something like table 1). While we will examine issues across this range, the EBLs we present at the September Commission meeting may cover a narrower set of issues, which will be informed by our work on this project. Further, as we assess the benefits of introducing a road user charge, we will be comparing the effectiveness of proposed charging arrangements with the existing system of taxes and charges.

Table 1: Matrix of vehicle categories and road use costs (indicative)

Vehicle/Issue	Road use / damage	Emissions	Congestion	Road access (curfews / restrictions)	Road trauma / accidents
Light ICE	X	X	X		X
Heave ICE	X	X		X	X
Light EV	X		X		X
Heavy EV	X			X	X

The PC has previously discussed the benefits of stronger governance for road infrastructure funding. Better governance would promote the development of road infrastructure projects that maximise the benefits to the community.

Road use sits within a broader range of substitutable and complementary transport modes. For commuters, road user charging (along with the availability of infrastructure) can influence choice between the use of private vehicle, public transport, active transport, ride sharing and work from home options. Likewise, there may be some intermodal competition for freight services, although road and rail will often be complements. These broader issues will be reflected in our analysis but is likely beyond the possible scope in the available timeframe.

Project timeframes and engagement

We are working to include a discussion of road user charging in the final report of the National Competition Policy Analysis 2025 study, which will be considered at the October 2025 Commission meeting.

This leaves six weeks to conduct the engagement and analysis required to support a discussion of this issue in the report. The scope of the issues set out in this paper reflects the timeframe within which the work will be completed. We will consider options for issues that should be considered further, either in the Pillar 1 Inquiry or a follow-up NCP project, for consideration at the October Commission Meeting.

Within the available timeframe, stakeholder engagement will need to be targeted. We will seek to meet with key peak private sector bodies and relevant government agencies at each level of government. The NCP 2025 interim report will flag that road user charging is an additional reform area that the PC is considering. This will provide other parties with the opportunity provide a submission or meet with us on road user charging.

With the short timeframes available for this work, we will heavily draw on previous PC analysis (box 1).

Box 1 – The PC has undertaken significant previous work on road user charging

Advancing Prosperity* (PC 2023) – Volume 3: *A competitive, dynamic and sustainable future

This report discussed approaches to road user charging, noting that the dominant suggested model for road pricing is a fixed charge per kilometre travelled regardless of where that travel occurs. It also discussed underlying principles of road user charging, including that efficient pricing would set charges as close as possible to the marginal (or incremental) costs of a journey.

It recommended Australian governments work towards an intergovernmental agreement for charging for all vehicle types, focused on distance-based charges. In the long term, the report recommended governments working towards more efficient pricing, including congestion charging in urban centres.

***Public transport pricing* (PC 2021)**

This report noted that existing road charges and tolls are not well-targeted at congestion, not a good basis for coherent sustainable funding for road infrastructure and maintenance. It advised that road congestion cost $24 billion in 2018-19, advising that lower public transport pricing may partly assuage congestion, but road user charges would be a better solution and parking levies would also assist.

Shifting the Dial* (PC 2017) – Supporting Paper 9: *Funding and Investment for Better Roads

This paper highlighted that reforms to road user charging were becoming more urgent due to greater fuel efficiency and electric powered vehicles.

It recommended reforms to align funding with motorists' preferences, greater value for money from road infrastructure, and stronger governance over spending through the establishment of Road Funds with hypothecated revenue.

***Road and Rail Freight Infrastructure Pricing* (PC 2006)**

This report considered road user funding in discussing competitive neutrality between road and rail freight services. The report concluded that there was limited substitutability and much complementarity between road and rail freight transport services

The report noted the benefits of establishing road funds, hypothecating revenue and having transparent and autonomous decision making for road infrastructure projects.

Road user charges in Australia

Australia's system for charging road users involves federal, state, territory and local governments. Each level raises revenue from road users through various mechanisms. Below is a summary of the specific charges each level of government charges to road users, which we will further develop to present an overview of current charging arrangements.

Federal – fuel excise and heavy-vehicle road user charging

- The Australian government primarily charges road users via a fuel excise of 50.8 cents per litre petrol and diesel. In 2022-23, net excise collections on petrol and diesel were around $12 billion (30% of road related revenues).
- The Fuel Tax Credits scheme offsets fuel excise for business use. The type of use (machinery, vehicles on public roads, vehicles on private roads etc) and type of vehicle determines the rate of fuel tax credit available.

- Heavy vehicles (trucks, buses, coaches) pay a road user charge of 32.4 cents per litre.
    - This charge is administered by reducing the road user charge amount from the fuel tax credits – so a heavy vehicle used on public roads for business purposes in 2025 is only eligible to claim:

$$Fuel\ Excise\ Refunded\ per\ litre = Fuel\ Tax\ Credit - Road\ User\ Charge$$

$$Fuel\ Excise\ Refunded\ per\ litre = 50.8c - 32.4c = 18.4c$$

    - The National Transport Commission estimated that the revenues from heavy vehicle distance charges totalled $3.4 billion in 2021-22, compared to a cost base of $3.8 billion.
- Other road related revenues paid to the federal government are the luxury car tax ($1.2 billion or 3% of road related revenues in 2022-23), road related fringe benefits tax ($1 billion or 2%) and road related GST ($6.2 billion or 16%).

State and Territory – registration and other levies

- State and Territory governments collect vehicle registration (24% of road related revenues in 2022-23), stamp duty (11%) and licensing fees (2%). They are not explicitly linked to distance driven or road usage.
- Some states have introduced congestion-related levies**.** In Victoria, for example, central Melbourne car-park owners pay a yearly congestion levy to the State Revenue Office ($1,240 to $1,750 per car park in 2025).
- Light-vehicle distance-based charging policies for EVs are pending; NSW plans to roll out EV road-user charges in 2027, or when EVs make up 30% of all new vehicle sales, pending federal legal permission.

Local government

- Councils derive specific revenue from road use as a result of parking fees and fines.
- Tolling or bridge-specific charges exist in some jurisdictions which may generate further revenue for local governments.

Funding of road infrastructure in Australia

The Australian government provides funding to local, state and territory governments to support road infrastructure through three main mechanisms. These mechanisms are:

- The **Infrastructure Investment Program** provides funding for a range of infrastructure projects, including road construction and maintenance. This includes ongoing components for road and rail infrastructure typically paid to State and Territory governments (although a large portion of the funding for Roads to Recovery is paid directly to local governments). It also includes specific project-based allocations – for example, the Western Sydney Infrastructure Plan.
- **Local Roads and Community Infrastructure** funding paid directly to local governments.
- **Financial Assistance Grants** funded jointly with State and Territory governments. Most of these grants are for general purpose assistance – however, a large number of grants are made specifically for local road construction and maintenance. In 2024-25, the Australian Government provided $156.5 million in local road grants, compared to $352.7 million in general purpose assistance.

States and Territories co-invest in federal programs, manage state highway networks and directly budget for construction and maintenance. Local councils fund local roads mostly through their budgets, augmented by federal grants and state funds. Councils propose projects per program guidelines, then manage delivery.

Funding for road maintenance and development is typically sourced from budget expenditures, not through hypothecated funding. There are some exceptions, particularly at lower levels of government. Western Australia, for example, allocates a portion registration-fee-derived revenue to road spending through their State Road Funds to Local Government Areas. Partial hypothecation was also reintroduced at the federal level with the re-introduction of fuel excise indexation. This involved the Australian Government paying amounts equal to the extra revenue gained from the indexation to a special account for payment to the states and territories for road infrastructure.

Governance of road funding in Australia

Road funding in Australia is governed across multiple levels of government, with elected representatives serving as key decision-makers, supported by relevant departments and agencies. At the federal level, the Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts is responsible for setting national transport policy and allocating funding to state, territory, and local governments for major infrastructure projects. Infrastructure Australia plays a complementary role by assessing large-scale infrastructure proposals, with central agencies overseeing the broader budget context within which funding is allocated.

Each state and territory has its own transport department, which manages road networks and funding distribution. These departments support the respective ministers for transport and roads, who are further backed by state cabinets and state treasuries in decision-making and budgetary processes.

The PC has previously recommended reforms to the governance of funding road infrastructure in Australia, to improve the linkage between road user preferences and infrastructure decisions (box 2). The main elements of this approach are hypothecation of road-related revenue to funds dedicated to construction and maintenance of roads, with investment decisions guided by the preferences of motorists.

Box 2 – Previous PC recommendations on road infrastructure funding governance

The Productivity Commission has consistently recommended the establishment of Road Funds as a key institutional mechanism for reforming Australia's road infrastructure funding and governance. These funds would hypothecate road-related revenues, operate autonomously at arm's length from government, incorporate user input into funding and charging decisions, and embed transparent evaluation processes.

In **Public Infrastructure (2014)**, the Commission proposed Road Funds as a structural reform to link road-user preferences with funding and delivery decisions and called for a national inquiry to guide implementation. The Commission emphasised that these funding bodies should be:

- autonomous
- revenue-secure
- transparent in governance and
- inclusive of users in project selection.

In **Shifting the Dial (2017)**, the Commission proposed reforms to Road Funds as part of a phased approach to implementing road user charging:

- initially, design Road Funds around heavy vehicle revenues and expenditures, providing a desirable pathway to sequencing reform objectives
- expand the remit of Road Funds to cover all users by hypothecating all road-related revenues and
- transition toward direct user charging.

In **Advancing Prosperity (2023)**, the Commission recommended an intergovernmental agreement to implement distance-based road user charges for all vehicles, incorporating road wear and congestion factors. It emphasised the need for:

- well-designed trials and
- transparent roles across levels of government.

Principles of road user charging

Road use – whether from private vehicles or freight – comes with a range of social costs which are not captured by the private costs facing a road user. These include gradual physical damage to road infrastructure, pollution and emissions, and road infrastructure. Although there are other mechanisms which can be used to reduce the negative effects of road use, one approach is to include pricing mechanisms for each of these as part of a distance-based road user charge (box 3). For example, the Commission has previously recommended that governments negotiate a road user charging system that includes a distance-based charge for all road users, plus damage premiums for heavy vehicles and potential congestion charges for high volume roads (PC 2023, p. 93).

Box 3 – Marginal cost vs. average cost pricing

In principle, road users could be charged based on either:

- The short-run marginal cost of their road use. This would include the public costs of their trip – for example, direct road damage, emissions and congestion – as well as existing private costs such as

Box 3 – Marginal cost vs. average cost pricing

fuel. It would not include the initial costs of building the road network.
- The long-run average cost, including the cost of constructing the road network.

Typically, given the large, fixed costs involved in constructing road infrastructure, average costs will exceed marginal costs. This will mean that, under marginal cost pricing, government at all levels would likely be running a loss in managing road infrastructure. But it also means that average cost pricing can lead to a loss of economic efficiency, because many socially useful road trips will not occur (because the price of such a trip exceeds the marginal cost to the road user).[a]

For this reason, the Commission has previously recommended pricing based on marginal cost (PC 2023). Similar recommendations were also made in the Henry Tax Review (Treasury, 2009). This could be combined with a fixed fee (such as a registration fee) to at least partially cover the difference between fixed and average costs.

Measuring marginal costs

A practical consideration behind marginal cost pricing is how the costs of road use should be measured. Measuring the road damage caused by a trip is central to this, but a complete measurement of marginal cost should include the other negative effects of a road trip, including increased congestion, pollution, and accident risk.

However, there are feasibility issues in adequately measuring some of these costs. Some factors affecting road damage beyond vehicle mass and axle configuration, such as the design and condition the road and local weather at the time of travel, may be difficult or impossible to measure. And while it is technologically feasible to more comprehensively monitor road use (for example, by introducing compulsory telematic), this could be politically unpopular, lead to privacy concerns and require expensive installations for older vehicles.

A reasonable middle ground could be to apply a distance-based charge using an approximation of marginal road damage, given the weight of a vehicle (either when empty or when carrying its maximum load). Charges based on other externalities could be introduced on top of this charge.

a. It is also possible that, even for a socially beneficial project, there is no average cost price that will allow a project to break even (Robson, 2018).

Road damage

The central feature of a distance-based road user charge should be to provide a price signal to users that reflects physical costs to the road network and discourages socially inefficient road use. It should also aim to achieve partial cost recovery for damage caused to roads by each trip – this can support future investments in new road infrastructure and maintenance given declining fuel excise revenue.

For road user charging to reflect the cost of damage to the road network, pricing would need to at least partially reflect the weight of each vehicle.[1] The relationship between weight and road damage is not linear: a vehicle that weighs x times more than another may do x^4 times the amount of damage. A consequence of this is that charging based on approximate marginal road damage will not lead to the same levels of cost recovery as the fuel excise has for light vehicles, because these vehicles cause such a low proportion of road damage. That is, a weight-based road user charge would likely redistribute some of the costs of road

[1] For trucks and other heavy vehicles, axle configuration will also have an effect on road damage.

use towards heavier vehicles.

Although the socially optimal charge would be priced according to the damage caused given a vehicle's exact weight and other characteristics, this need not be the case in practice. A charge based on road damage could be approximate and vary for classes of vehicles with different weights and axle configurations. For example, the 'menu of options' previously proposed by the PC could include a range of fixed and distance-based charges for each class of vehicle.[2]

Congestion

Road congestion creates considerable costs for private motorists, businesses and freight networks.[3] These costs are worsened by the individual decision to use a congested road, and can often be avoided by using less congested routes or by shifting road use away from peak times. If road users are not charged in line with the costs of increased congestion, they may decide to use congested roads even when the social cost of their trip exceeds the benefits.

The Commission has previously identified that existing charges on road users do not sufficiently internalise the costs created by driving on congested roads (PC 2021, p. 98). As part of a road user charge, additional charges could be levied targeting congestion, including:

- Charges for entering the CBD in each city ('cordon charges').
- Charges based on distance travelled on congested freeways and arterial roads in the peak direction ('corridor charges').

For these charges to be effective, they should be targeted to peak times. They could also be used in conjunction with other policies targeting congestion, including parking levies.

Emissions

Road use by individuals in conventional vehicles contribute substantially to overall emissions, resulting in significant environmental damage. The transport sector accounts for 19% of gross emissions in 2023-24, and almost half (42% or 42.4Mt) of transport emissions come from passenger cars. An additional 23% of transport emissions (23.3Mt) come from heavy vehicles.

Pillar 5 has included a carbon component as one option to improve emissions reduction incentives in transport. This would involve charging for each unit of emissions and would effectively 'price in' the social and environmental costs of carbon-emitting road use, in the same spirit as a congestion charge.

An unintended consequence of the current fuel excise and diesel-based road user charge is that it provides some incentive to reduce emissions, even if this is poorly targeted. As such, one objection to shifting from fuel excise to a distance-based road user charge is that drivers of zero and low emissions vehicles should not be 'penalised', given that their environmental externalities are low. Pricing emissions separately avoids this issue, since it allows environmental costs to be explicitly captured and provides an incentive to switch to lower emissions vehicles and fuel sources.

[2] Private vehicles have also been steadily increasing in size over time. This comes with another set of social costs – for example, by increasing the risk of serious injury or death to other drivers when larger vehicles are involved in a traffic accident. At a minimum, larger private vehicles should be charged for the increase in road damage they cause.

[3] By increasing time spent driving, it can also increase the environmental costs of a trip – although this can be priced in separately as part of emissions pricing.

Road access

Noise pollution caused by traffic also creates a social cost, particularly in residential areas. The current approach among state, territory and local governments is often to impose curfews, preventing heavy vehicles from operating on certain roads at specific times (typically overnight). However, this can also have the effect of preventing freight from operating when it would be most efficient (i.e., when congestion is lowest). Although their engine noise is typically lower, heavy electric vehicles are also subject to these rules.

Some level of regulation to manage noise pollution in residential areas is likely to be necessary. However, it is worth considering whether this could also be partially managed as part of a road user charge, similar to congestion pricing, particularly as freight networks shift towards quieter electric vehicles.

Neutrality for heavy vehicle investment decisions

The existing road user charge for heavy vehicles is applied via fuel use. This means that heavy zero-emissions vehicles are not charged for the road damage they cause.

Heavy zero-emissions vehicles are currently uncommon. In 2024, there were fewer than 800 of these vehicles on the roads (BITRE 2024), compared to over 400,000 running on petrol and diesel. This is largely a product of the current regulatory approach. Barriers include weight restrictions (heavy EVs as 'restricted access vehicles', partly because of a large battery weight) and inadequate charging station infrastructure (since standard charging stations are not sufficient to charge most heavy EVs).

A road user charge that addresses road damage more directly would help to recoup the road damage caused by these vehicles as fleets electrify. It could also help ease resistance to regulatory changes that encourage electrification – governments responsible for managing roads may be more willing to support heavy electric vehicles if they have a way to recoup some of the associated costs.

Quantitative analysis

At this stage, we are scoping quantitative methods and data that could be used to inform our recommendations and provide evidence of the likely impacts and effectiveness of proposed reforms. We are building on the estimates provided in previous Inquiries where possible. While this remains under consideration, we are currently pursuing two quantitative exercises to inform our work.

The first quantitative exercise is to estimate the price elasticity of demand for roads. With an estimate of how road user charges would affect total distance travelled, we could roughly estimate the impacts on emissions, road wear, road accidents and congestion – depending on the quality of our data. We could draw elasticity estimates from relevant academic literature (e.g. on the fuel price elasticity of demand) or estimate one ourselves.

The second quantitative exercise is to estimate the change in output from implementing a road user charge. By increasing the cost of using roads, a road user charge will decrease some economic activity. With estimates of the effects on output in different industries, we could derive corresponding economic shocks for a CGE model to quantify the economy-wide effects of a road user charge.

With these two components, we could roughly work out a socially optimal road user charge. For any road user charging scheme, we can also conduct fiscal costing to estimate the potential budgetary impacts.

We may also need to consider the distributional impact of a user charging scheme as the impact may not be equal across income deciles.

Implementation considerations

Reform of road user charging has remained slow, despite the technological shifts driving the gaps in the current framework having been discussed in PC reports for over 10 years. To further assist governments, we also plan to address some practical considerations for implementing reforms to road user charging. These matters include:

- balancing the simplicity of the current fuel excise arrangements with the administration costs, privacy and data concerns around distance-based charging
- the responsibilities of different levels of government, noting Constitutional limitations on the taxation powers of governments (e.g. the Commonwealth Parliament's exclusive power to impose an excise, and the lack of power for the Commonwealth Parliament to impose taxation that discriminates geographically in Australia
- community service obligation funding for roads in regional areas, where social benefits may outweigh infrastructure costs, even though private benefits do not.