Options for setting heavy vehicle charges for 2023-24 and beyond

September 2022

National Transport Commission

Consultation paper

Report outline

Title	**Options for setting heavy vehicle charges for 2023-24 and beyond**
Type of report	Consultation paper
Purpose	For public consultation
Abstract	In late 2022, transport ministers will consider options for setting heavy vehicle charges for 2023-24 and beyond. This paper outlines forecasts for the future heavy vehicle cost base. It discusses three different options to set charges for a single year, or a three-year period commencing in 2023-24.
Submission details	The NTC will accept submissions until 5.00pm on Wednesday, 12 October 2022 online at **www.ntc.gov.au** or by mail to: National Transport Commission Public submission – heavy vehicle charges from 2023-24 Level 3, 600 Bourke Street Melbourne VIC 3000
Attribution	This work should be attributed as follows, Source: National Transport Commission, Options for setting heavy vehicle charges for 2023-24 and beyond, consultation paper. If you have adapted, modified, or transformed this work in anyway, please use the following, Source: based on National Transport Commission, Options for setting heavy vehicle charges for 2023-24 and beyond, consultation paper.
Key words	Heavy vehicle charges, road user charge, registration charges, 2023-24, heavy vehicle cost base, heavy vehicle charges revenue, single-year, three-year fixed price pathway
Contact	National Transport Commission Level 3/600 Bourke Street Melbourne VIC 3000 Ph: (03) 9236 5000 Email: **enquiries@ntc.gov.au** **www.ntc.gov.au**

Have your say

What to submit

This paper builds on the 2021 Heavy Vehicle Charges Determination Consultation Regulation Impact Statement (2021 Determination C-RIS) and presents options for setting heavy vehicle charges from 2023-24 onwards. We will consider submissions already received in response to the 2021 Determination C-RIS in the advice provided to Ministers. Submitters who have previously provided submissions on the 2021 Determination C-RIS may wish to focus their feedback on the topics covered in this consultation document only.

We are seeking stakeholder views on the seven consultation questions in the Executive Summary and throughout the document. We are also interested in any additional information submitters could provide to support their views.

When to submit

We are seeking submissions on this consultation paper by 5.00pm on Wednesday, 12 October 2022.

How to submit

Any individual or organisation can make a submission to the NTC.

Making a submission

- Visit **www.ntc.gov.au** and select 'Have your say' on the homepage. .

- Send a hard copy to:

  National Transport Commission
  Public submission – heavy vehicle charges from 2023-24
  Level 3, 600 Bourke Street
  Melbourne VIC 3000.

Where possible, you should provide evidence, such as data and documents, to support the views in your submission.

Publishing your submission

Unless you clearly ask us not to, we publish all the submissions we receive online. We will not publish submissions that contain defamatory or offensive content.

The *Freedom of Information Act 1982* (Cth) applies to the NTC.

Contents

Executive summary

At the December 2021 Infrastructure and Transport Ministers Meeting (ITMM), ministers identified a preference for increasing heavy vehicle charges by 2.75 per cent in 2022-23. At the same meeting, ministers also decided that they would again consider heavy vehicle charges in late 2022, including the possibility of a multi-year price path.

This consultation paper outlines options for setting heavy vehicle charges from 2023-24 onwards. The purpose of the consultation paper is to seek stakeholder feedback on the options being considered so stakeholder views can be presented to ministers, along with the options, in late 2022.

Context

2021 Heavy Vehicle Charges Determination

During 2020 and 2021, the NTC undertook a heavy vehicle charges determination (the 2021 Determination). This process involved the following key phases:

- Research and information gathering
- Publication of Consultation Regulation Impact Statement (C-RIS) for public consultation
- Consultation period from 28 June 2021 to 24 August 2021 with several stakeholder workshops
- Summarising the feedback received from submitters and drafting the Decision Regulation Impact Statement (D-RIS) which included final recommendations
- Consideration of D-RIS and the NTC's final recommendations by ministers

Purpose and Scope of this Consultation Paper

At the December 2021 ITMM, ministers considered the D-RIS and the NTC's final recommendations.

Ministers identified a preference for increasing heavy vehicle charges by 2.75 per cent in 2022-23. At the same meeting, ministers also decided that it would again consider heavy vehicle charges in late 2022, including the technical recommendations for changes to the PAYGO methodology in the D-RIS and the possibility of a multi-year price path.

Effectively, this decision postponed full consideration of the 2021 Determination until 2022.

The NTC now needs to re-visit implementation options for the 2021 Determination and provide stakeholders and ministers with updated information on these options. This information should be considered in conjunction with the information contained in the 2021 Determination C-RIS.

Current situation

The heavy vehicle cost base for 2020-21 which underpins heavy vehicle charges for 2022-23 is $4,302.9 million. Estimated heavy vehicle charges revenue for 2022-23 is $3,727.1 million. This leaves a revenue gap of $575.8 million.

The heavy vehicle cost base for 2021-22 has increased by approximately 20.7% to $5,193.4 million. This is $1,448.1 million more than estimated heavy vehicle charges revenue in 2023-24 if heavy vehicle charges do not increase above current levels. Heavy vehicle charges revenue would need to increase by approximately 38.7 per cent to achieve full cost recovery.

Provisions for automatic adjustment in Heavy Vehicle Charges Model Law

If no decision is made by ministers, heavy vehicle registration charges will automatically increase by 40.4 per cent in 2023-24 under the annual adjustment formula contained in the Heavy Vehicle Charges Model Law (the Model Law).

Options

Single-year decision or multi-year price path

In the 2021 Determination, the NTC recommended that ministers agree to set a fixed price path for three years. Ministers deferred consideration of this recommendation when they identified a preference to increase heavy vehicle charges by 2.75 per cent for 2022-23. This was confirmed by ministers in April 2022, after a public consultation process. However, the Commonwealth government was in caretaker mode at that time.

Whether to set charges on a yearly basis or whether to set charges for multiple years remains a key decision for ministers when setting heavy vehicle charges to apply for 2023-24 onwards.

Most submissions on the 2021 Determination C-RIS supported the introduction of a three-year fixed price path. However, informal discussions also indicate that this support is dependent on the specific increases incorporated in the price path. On balance, the NTC recommends that ministers set charges for three years, because this provides both industry and governments with greater certainty and is more administratively efficient.

Conceptual approaches to setting heavy vehicle charges

The NTC has developed three options for setting heavy vehicle charges from 2023-24 onwards. These all apply a series of equal percentage changes to heavy vehicle charges. These options could be used to determine the percentage increases to be applied under both single year or multi-year price setting approaches:

Option 1: Increase heavy vehicle charges by 2.75 per cent per annum: This is the same percentage increase as agreed by ITMM for 2022-23 heavy vehicle charges.

Option 2: Increase heavy vehicle charges by 6 per cent per annum: This is close to the current rate of consumer price inflation. Consumer price inflation was 6.1 per cent in the year ending June 2022.

Option 3: Increase heavy vehicle charges by 10 per cent per annum: This is higher than Option 2 but would still be insufficient to reduce the revenue gap below $1b by Year 3, as shown in Table 1 below.

Based on the assumptions outlined above, and the forecasts for the heavy vehicle cost base developed in Section 5.5 of this paper, these options would result in the gaps between the heavy vehicle cost base and heavy vehicle charges revenue shown in Table 1 below:

Table 1. Estimated remaining gap between the heavy vehicle cost base and heavy vehicle charges revenue

	Estimated remaining gap[1] between the heavy vehicle cost base and heavy vehicle charges revenue					
	Year 1 $m	**Year 1 %**	**Year 2 $m**	**Year 2 %**	**Year 3 $m**	**Year 3 %**
Option 1: Increase heavy vehicle charges by 2.75 per cent per annum	1,337	25.7	1,870	31.9	2,013	32.7
Option 2: Increase heavy vehicle charges by 6 per cent per annum	1,213	23.4	1,617	27.6	1,614	26.2
Option 3: Increase heavy vehicle charges by 10 per cent per annum	1,062	20.5	1,286	21.9	1,073	17.4

Assessment of options

Our interpretation of the combined pricing principles in the current environment is that they would favour an implementation pathway that balances the agreed need for full cost recovery over time with keeping yearly increases to heavy vehicle charges within reasonable bounds.

Table 2 shows the NTC's current ranking of options against four criteria where 1 is best and 3 is worst

- Ability to achieve full cost recovery over time
- Effect on equity, impact on regional and remote communities
- Affordability for industry
- Revenue implications for governments

[1] The gap is measured as a percentage of the estimated total heavy vehicle cost base.

Table 2. Ranking of options

Option	Ability to achieve full cost recovery over time	Effect on equity, impact on regional and remote communities	Affordability for industry	Revenue implications for governments
Option 1: Increase heavy vehicle charges by 2.75 per cent per annum	3	1	1	3
Option 2: Increase heavy vehicle charges by 6 per cent per annum	2	2	2	2
Option 3: Increase heavy vehicle charges by 10 per cent per annum	1	3	3	1

1.1 Next steps

This consultation period ends at 5.00pm on Wednesday, 12 October 2022. The NTC will summarise all submissions and provide final recommendations to ITMM in December 2022.

List of questions

2 Introduction

Key points

- At the December 2021 ITMM meeting, ministers considered the D-RIS and final recommendations from the 2021 Determination.
- Rather than make decisions on the full range of technical and implementation recommendations contained in the D-RIS, ITMM identified a preference to increase heavy vehicle charges by 2.75 per cent in 2022-23.
- ITMM agreed to re-consider the technical recommendations from the 2021 Determination and implementation options for heavy vehicle charges to apply from 2023-24 in late 2022, including the possibility of a multi-year price path.
- This consultation paper seeks stakeholder views on options for setting heavy vehicle charges from 2023-24 onwards. It needs to be considered as a supplementary consultation paper to the 2021 Determination C-RIS.
- Final options and stakeholder views will be presented to ministers in late 2022.

2.1 The NTC's responsibilities

The National Transport Commission (NTC) has ongoing responsibilities for recommending heavy vehicle charges to ministers. These charges are intended to apply nationally and be set to fully recover the share of road construction and maintenance costs that can be allocated to heavy vehicles.

2.2 Background

On 22 December 2021 the NTC presented the outcome of the 2021 Determination to ministers. Recommendations included a range of technical changes to the PAYGO model, as well as recommendations for heavy vehicle charges to apply from 2022-23.

Ministers identified a preferred option of increasing heavy vehicle charges by 2.75 per cent in 2022-23. Further consultation on ministers' preferred option occurred subsequently. Heavy vehicle registration charges in the Model Law and the RUC rate have since increased by 2.75 per cent.

Ministers noted that they would re-consider heavy vehicle charges, including the option of multi-year charge setting, to provide additional certainty to industry on heavy vehicle charges.

2.3 Decisions required for 2023-24 and beyond

The Model Law contains a provision that ensures registration charges are automatically adjusted to reflect the latest heavy vehicle cost base. Unless ministers make a different decision, the annual adjustment formula contained in the Model Law would automatically apply, and the registration charges specified in the Model Law would be increased to fully recover the heavy vehicle cost base.

This formula does not apply to the Road User Charge (RUC) which is set by the Federal Transport Minister by regulatory instrument under the *Fuel Tax Act 2006* (Cth).

Given this background, and the intention of ministers to re-consider heavy vehicle charges in late 2022, it will be necessary for ministers to make the following key decisions:

- whether to adopt a multi-year price path; and
- at what level to set heavy vehicle charges to apply from 2023-24 onwards.

The NTC will also ask ministers to re-consider a range of technical recommendations for changes to the PAYGO model contained in the 2021 Determination.

2.4 Temporary Reduction in Fuel Excise

As part of the 2022-23 budget, the Commonwealth government implemented a temporary reduction in the fuel excise rate from 44.2 to 22.1 cents per litre of fuel.[2] This reduction commenced on 30 March 2022. This temporary reduction will end at 11.59pm on 28 September 2022.

This temporary reduction is not considered in this consultation paper as the temporary reduction in fuel excise ends well before 2023-24. None of the financial implications for governments or heavy vehicle operators have been considered in any of the forecasts and options presented in this paper.

2.5 Objectives

The objective of this consultation paper is to seek stakeholder feedback on options for setting heavy vehicle charges from 2023-24 onwards. These options build upon the 2021 Heavy Vehicle Charges Determination and follow an increase in heavy vehicle charges of 2.75 per cent for 2022-23.

2.6 Approach

This consultation paper builds on the work carried out as part of the 2021 Determination.

The Determination was completed after thorough consultation with stakeholders, including a two-month public consultation process.

The C-RIS and stakeholder responses to the C-RIS can be found on the NTC website under:

https://www.ntc.gov.au/transport-reform/ntc-projects/heavy-vehicle-charges-determination

This consultation paper provides a range of options for implementing charges from 2023-24 onwards. The consultation process will run from Wednesday, 14 September 2022 to Wednesday, 12 October 2022.

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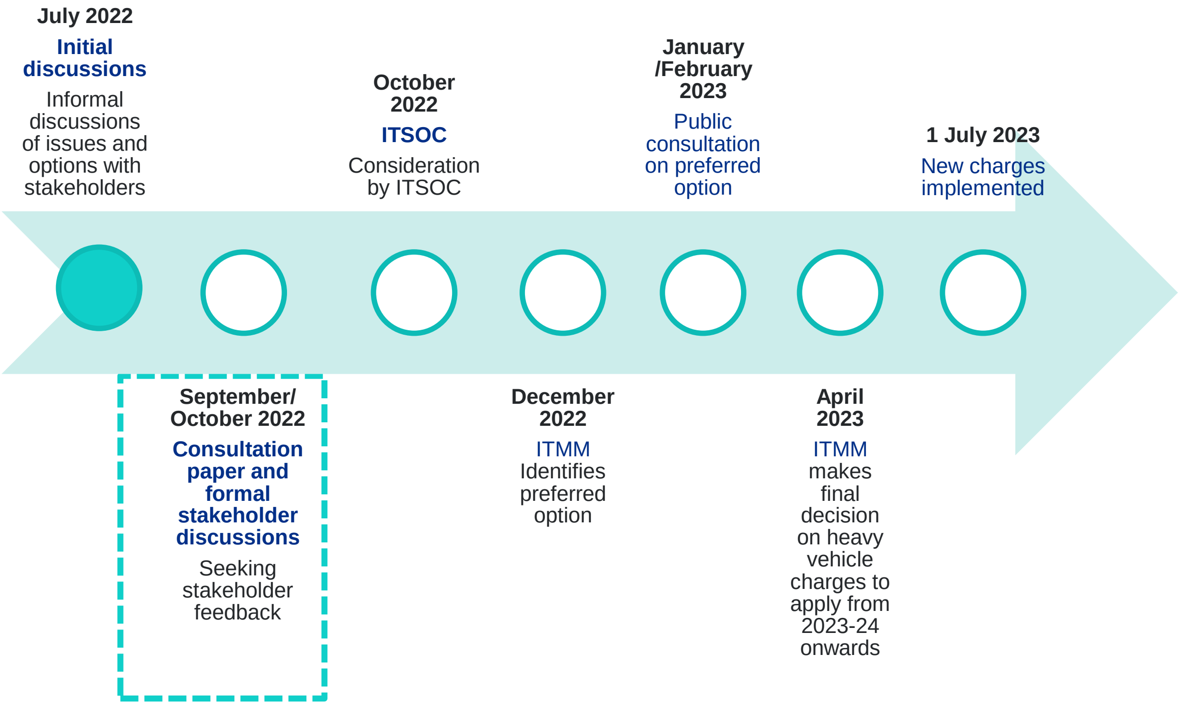
[2] The 2022-23 Budget fact sheet can be found under: https://budget.gov.au/2022-23/content/factsheets/download/factsheet_excise.pdf


July 2022
Initial discussions
Informal discussions of issues and options with stakeholders
September/ October 2022
Consultation paper and formal stakeholder discussions
Seeking stakeholder feedback
October 2022
ITSOC
Consideration by ITSOC
December 2022
ITMM Identifies preferred option
January /February 2023
Public consultation on preferred option
April 2023
ITMM makes final decision on heavy vehicle charges to apply from 2023-24 onwards
1 July 2023
New charges implemented

3 Background on heavy vehicle charges

Key points

- Heavy vehicle charges apply to all vehicles with a Gross Vehicle Mass (GVM) of above 4.5 tonnes.
- The charges consist of a RUC on fuel and a yearly registration charge comprising roads and regulatory components.
- Charges are set using the PAYGO model which calculates the heavy vehicle cost base based on historical government road expenditure and road usage data.
- Ministers make collective decisions on heavy vehicle charges. The NTC provides advice to ministers to support their decision-making.
- The binding pricing principles governing the NTC's advice have a strong focus on achieving full cost recovery of allocated costs over time.
- The RUC is implemented under the Commonwealth *Fuel Tax Act 2006*. It is collected through excise, and a reduced fuel tax credit is then provided on fuel purchased for on road use by heavy vehicles.
- Registration charges are implemented through the Model Law. The charges have legislative force once the Model Law is adopted by states and territories.

3.1 Heavy vehicle charges

What are heavy vehicle charges

Heavy vehicles include all vehicles with a Gross Vehicle Mass (GVM) of above 4.5 tonnes.

There are three components to the charges paid by heavy vehicles:

- the fuel-based RUC, administered by the Commonwealth Government.
- the roads component of the registration charge, as applied by state and territory governments.
- the regulatory component of the registration charge, which is applied to cover the operating cost of the National Heavy Vehicle Regulator (NHVR).

The fuel charge and registration charge are linked to government expenditure on roads. The amount to cover the regulatory cost of the NHVR is designed to reflect the NHVR's budget, which is approved by ITMM.

NTC's role

The NTC has ongoing responsibilities for recommending heavy vehicle charges to ministers[3]. These charges are intended to apply nationally and are set to fully recover the share of road construction and maintenance costs that can be allocated to heavy vehicles.

Pricing principles and the importance of cost recovery

A set of guiding principles govern the application of the cost recovery methodology. These pricing principles were agreed by the Australian Transport Council (a predecessor of ITMM) and the Council of Australian Governments (COAG) and are binding on the NTC.

The current pricing principles were designed to guide the NTC towards an outcome that efficiently recovers the cost of providing road infrastructure for heavy vehicles. In addition, the principles also consider issues of relevant public interest, such as fairness and equity.

The COAG principles[4] are:

"ATC direct the NTC, in developing its Determination, to apply principles and methods that

1. *ensure the delivery of full cost recovery in aggregate,*
2. *further develop indexation adjustment arrangements to ensure the ongoing delivery of full expenditure recovery in aggregate and*
3. *remove cross-subsidisation across different heavy vehicle classes,*

recognising that transition to any new arrangement may require a phased approach".

ATC/SCOTI guiding principles[5]

"National heavy vehicle road use prices should promote optimal use of infrastructure, vehicles and transport modes. This is subject to the following:

1. *full recovery of allocated infrastructure costs while minimising both the over and under recovery from any class of vehicle*
2. *cost effectiveness of pricing instruments*
3. *transparency*
4. *the need to balance administrative simplicity, efficiency and equity (e.g. impact on regional and remote communities/access)*
5. *the need to have regard to other pricing applications such as light vehicle charges, tolling and congestion."*

Both the ATC and COAG principles are standing principles until the relevant authority changes them and are binding on the NTC.

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[3] Under the Inter-Governmental Agreement for Regulatory and Operational Reform in Road, Rail and Intermodal Transport 2003, and in accordance with the pricing principles.

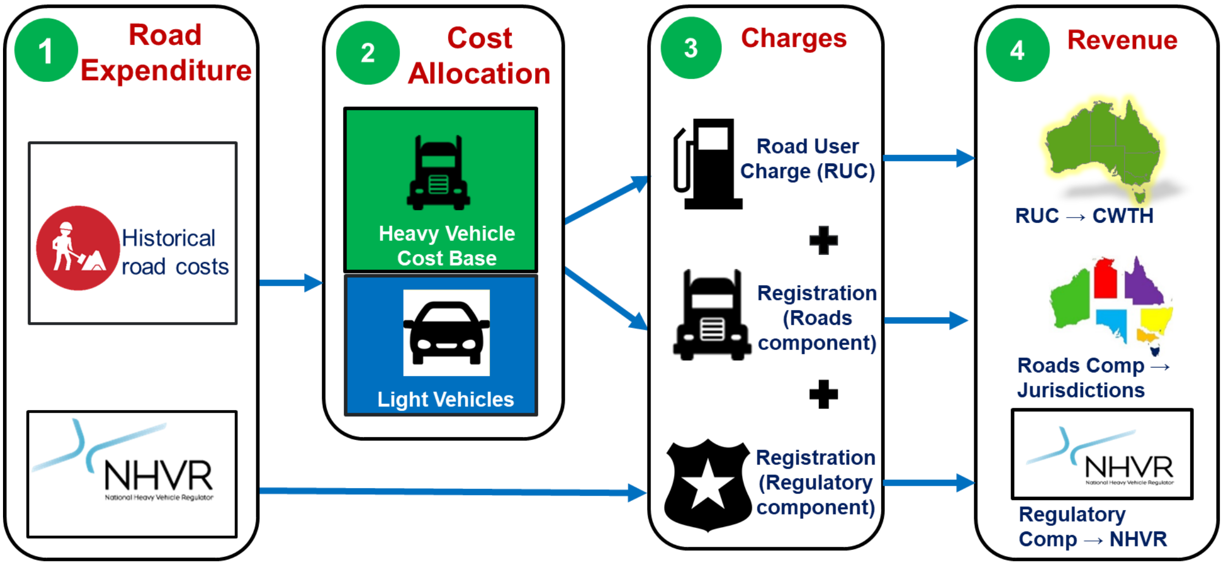
[4] Endorsed at its meeting of 13 April 2007.

[5] Approved by ATC in August 2004 and reaffirmed in May 2007. Note: SCOTI is the Standing Council on Transport and Infrastructure, a predecessor of ITMM.

The PAYGO model

Each year, jurisdictions provide the NTC with a completed road expenditure template which covers all road construction and maintenance costs (light and heavy vehicles). Data from the Australian Bureau of Statistics Government Financial Statistics Series is used to account for local government expenditure on roads. A cost base is then established with the heavy vehicle portion recovered via heavy vehicle charges. Figure 1 provides an overview of the existing PAYGO system.

Figure 1. Overview of the current PAYGO system



The cost base is calculated by taking a weighted 7-year average of the historic financial costs of providing roads. These costs, which are measured in a number of expenditure categories, are then allocated between vehicle classes on the basis of:

- a cost allocation matrix[6]
- usage data including vehicle kilometres travelled, ESA-kilometres travelled, AGM-kilometres travelled, and PCU-kilometres travelled[7].

Based on the costs allocated to each vehicle class, the NTC then recommends a set of heavy vehicle charges that recovers the heavy vehicle cost base in total while ensuring each vehicle class, on average, pays at least the attributable costs allocated to the vehicle category.

Figure 2 illustrates how the NTC processes this information and makes recommendations to ITMM. The NTC's advice on heavy vehicle charges is informative and decisions on setting heavy vehicle charges are made by ITMM.

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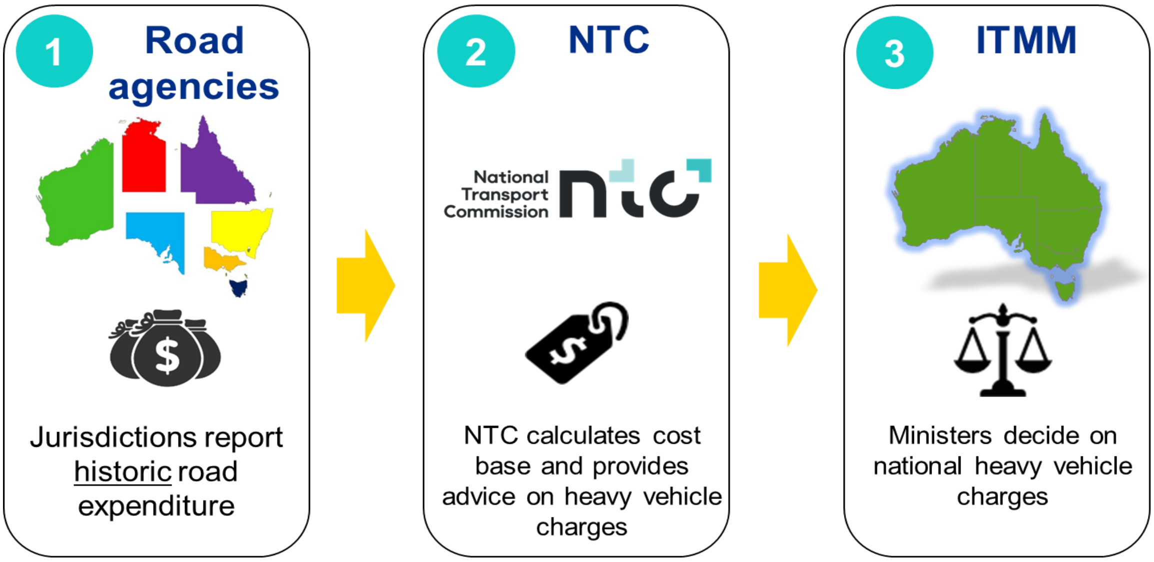
[6] The cost allocation matrix has been developed over time with input from industry and experts and has been subject to consultation. The current matrix was first approved as part of the 2007 Heavy Vehicle Charges Determination.

[7] ESA stands for Equivalent Standard Axles, a measure of road wear caused by a vehicle, AGM stands for Average Gross Mass, a measure of vehicle weight, and PCU stands for Passenger Car Unit, a measure of the footprint of a vehicle.

Figure 2. Overview of existing PAYGO regulatory process



Determinations, where all aspects of the model and the resulting heavy vehicle charges are reviewed (considering the pricing principles and other directions from government), are carried out infrequently. In the years between determinations, an annual adjustment formula is used to ensure that heavy vehicle charges continue to recover the heavy vehicle cost base. This formula is included in the Model Law and is intended to automatically adjust heavy vehicle charges without the need for ITMM to approve the change.

In simple terms, the annual adjustment formula works out a single percentage increase or decrease that is applied to all registration charges and to the RUC rate, which considers the gap between the most recent cost base and the previous year's cost base, as well as growth in the vehicle fleet and fuel consumption by heavy vehicles.

Legislation

The RUC is implemented under the *Fuel Tax Act 2006* (Cth). An increase in RUC is implemented as a reduction to the fuel tax credit.

The *Fuel Tax Act 2006* provides for the Transport Minister (the Minister) to determine the amount of RUC paid by heavy vehicle operators. The Act requires that the minister conducts a public consultation process before increasing the rate of the RUC.

The consultation period must be at least 60 days and the minister must make available the proposed increased rate of RUC, and any information that was relied on in determining the proposed increased rate.

The *Fuel Tax Act 2006* then requires the minister to consider any comments received, within the period specified by the minister, from the public in relation to the proposed increased rate.

Registration charges are implemented through the Model Law. This contains the schedules of heavy vehicle registration charges agreed by ITMM. The Model Law also provides a formula to calculate an annual adjustment for charges in the years between determinations, should ministers not make a decision on charges. The charges have legislative force once the Model Law is adopted by states and territories.

4 The 2021 Heavy Vehicle Charges Determination

Key points

- The 2021 Heavy Vehicle Charges Determination Consultation Regulation Impact Statement (2021 Determination C-RIS) forms the starting point for this consultation paper. The information provided in this consultation paper need to be considered together with the information published in the Heavy Vehicle Charges Determination Consultation Regulation Impact Statement dated 28 June 2021.
- In December 2021, ministers deferred consideration of the technical recommendations and the charges to apply from 2023-24 onwards to late 2022.
- The 2021 Determination explored a range of recommendations for technical changes to the PAYGO model.
- The NTC has estimated that implementing all technical changes explored in the 2021 Determination would add approximately $150m to the heavy vehicle cost base.

4.1 Consultation on the 2021 Determination

Following the conclusion of research and investigation phases, the NTC published the 2021 Determination C-RIS on 28 June 2021.

The public submission period closed on 24 August 2021. Thirteen submissions were received.

Details of the Determination, including the Determination C-RIS and submissions can be found on the NTC website under:

https://www.ntc.gov.au/transport-reform/ntc-projects/heavy-vehicle-charges-determination

In December 2021, ITMM deferred consideration of the technical recommendations and the charges to apply from 2023-24 onwards to late 2022.

4.2 Potential implications for the Heavy Vehicle Cost Base

The Determination C-RIS outlined and sought stakeholder views on a range of possible technical changes to the PAYGO model. These include:

- exploring options to ensure the ongoing availability of usage data
- using new, updated ESA values to allocate costs
- removing MaxMan from the model

- adjusting fuel usage estimates for leakages due to RUC exemptions for fuel used to drive auxiliary equipment
- reviewing and updating the unsealed road travel discount based on a new survey
- removing the community service obligations discount
- recalculating the regulatory component of registration charges using the current formula, updated usage data and the current approved NHVR budget as inputs.

The NTC has estimated that implementing all technical changes explored in the 2021 Determination would add approximately $150m to the heavy vehicle cost base. Information on how the individual technical changes would affect the heavy vehicle cost base is provided in Section 5.2.3 of the 2021 Determination C-RIS. However, it is important to note that the figures and some of the details of the technical changes have since been revised, with the result that the expected increase in the cost base is now lower at $150m than shown in the 2021 Determination C-RIS.

Ministers have yet to fully consider the recommendations contained in the 2021 Determination C-RIS and decide whether to approve any of the recommended technical changes. In the interim, the existing methodology continues to apply. All estimates of future heavy vehicle cost bases presented in this paper have been developed based on the current PAYGO methodology.

4.3 Impact of updated ESA values and usage data on registration charges

Even without many of the technical changes recommended in the 2021 Determination C-RIS, updating ESA values and usage data changes the allocation of costs to each heavy vehicle class.

One of the pricing principles requires cross subsidies between different heavy vehicle classes to be removed. Based on this pricing principle, it is necessary to adjust the relativities between the registration charges for different heavy vehicle classes. In some cases, the required adjustment could be significant and impose an unreasonable burden for the operators of the affected vehicle classes. The estimated registration charges outlined in this consultation paper assume that the required adjustments would be moderated and introduced over multiple years where required.

The moderation approach adopted for this consultation paper applies differential rates of increase in the estimated charges for different types of powered units and trailers while maintaining the same overall revenue as would be achieved from a uniform percentage charge increase applied to all powered units and trailers.

That is, certain registration charges increase faster (1.5 percentage points higher than the specified annual percentage figure) to help reduce the degree of cross-subsidisation while still retaining some pragmatism about the rate of increase in charges that can be implemented for those vehicle classes.

Charges for other types of vehicles and trailers increase by less than the specified figure Overall, the amount of revenue collected nationally is the same as if the headline increases had been applied uniformly to all powered units and trailers.

5 The Heavy Vehicle Cost Base

Key points

- When ministers decided to implement a 2.75 per cent increase in heavy vehicle charges for 2022-23, there was an estimated gap of $847.4m between the identified heavy vehicle cost base for 2020-21 and the estimated revenue in 2022-23 under then current charges.
- This gap has increased significantly and now stands at $1,448.1m or 27.7 per cent of the heavy vehicle cost base. This is because the heavy vehicle cost base for 2021-22 has increased by 20.7 per cent to $5,193.4m. From discussions with state and territory road agencies, and based on available expenditure forecast data, we expect further increases for 2022-23 and 2023-24.
- The gap between the heavy vehicle cost base and charges revenue needs to be covered by other government revenue sources. It is effectively funded by taxpayers and represents a subsidy to the heavy vehicle industry.
- Without substantial increases in heavy vehicle charges, this gap is likely to increase in the future.
- While it is possible that government road expenditure may stabilise at some time in the future, decisions on heavy vehicle charges for 2023-24 and beyond will need to be made against a significant and increasing revenue gap.
- Given PAYGO's role as a cost recovery mechanism, and the requirement to achieve cost recovery in the pricing principles, decisions arguably need to be consistent with a longer-term goal of eliminating, or at least reducing the current under-recovery of the heavy vehicle cost base.

5.1 Limits on available information

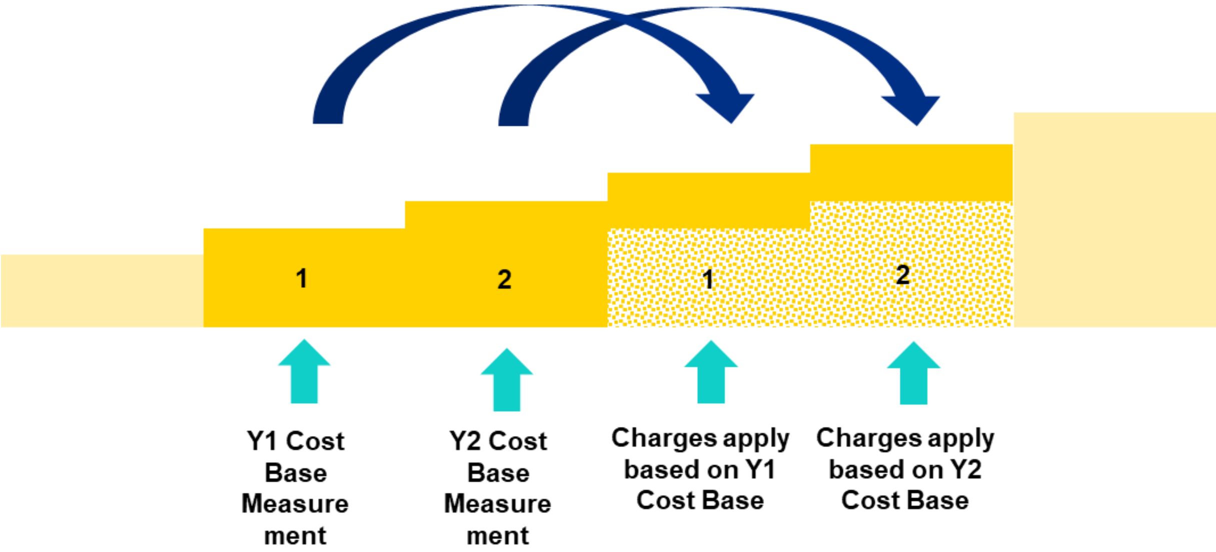
The PAYGO system involves a two-year gap between the time when government road expenditure is measured and when the charges based on that expenditure are implemented.

This is because expenditure is measured on a historic basis and some time is required to collect the data and prepare advice for ministers. Once ministers have decided, time is required to implement the decision. Therefore, in practice, decisions are made in the current year, based on the previous year's data, to set heavy vehicle charges to apply in future years.

For example, the heavy vehicle charges that apply in 2022-23 were informed by a heavy vehicle cost base calculated based on road expenditure for the seven years ending in 2020-21.

This is illustrated by Figure 3 below.

Figure 3. Illustration of two-year lag



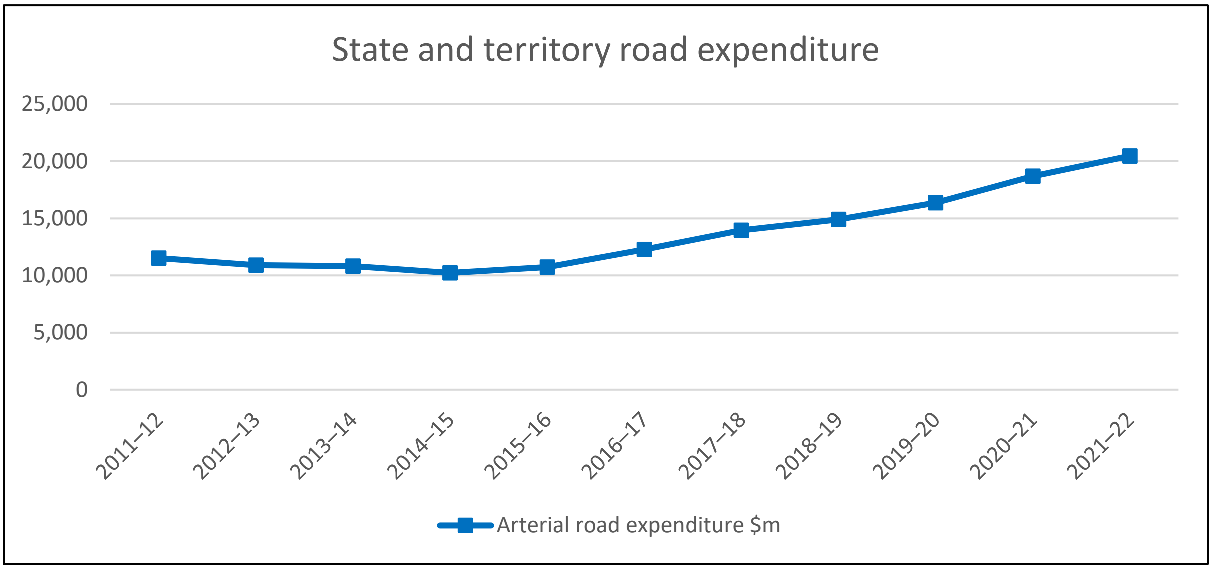
Ministers will need to make a decision on heavy vehicle charges for 2023-24 based on actual expenditure data for the financial years up to 2021-22. This information is usually provided to the NTC in early September.

To inform this consultation process, the NTC has prepared forecasts of road expenditure data for 2022-23 and 2023-24. Actual expenditure data for 2021-22 has recently become available and has been incorporated into modelling for this report.

5.2 Road Expenditure Trends

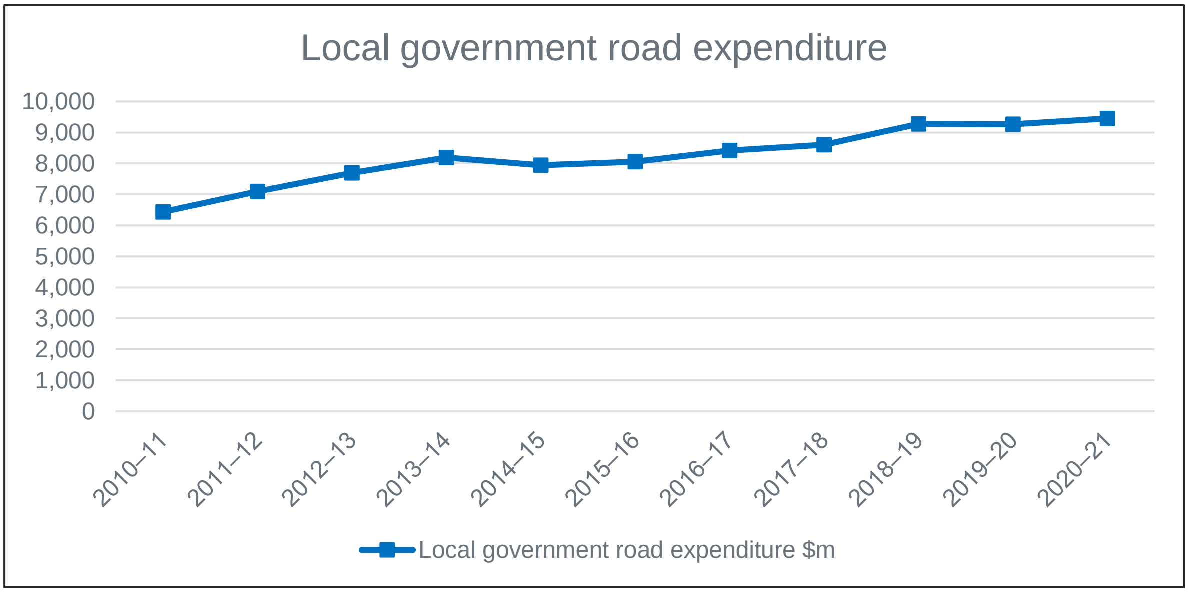
Figure 4 and Figure 5 show recent road expenditure by state, territory, and local governments.

Figure 4. State and territory actual road expenditure



State and territory road expenditure has increased by an average of 5.9 per cent over the last 10 years whereas local government road expenditure has increased by an average of 3.9 per cent over the last 10 years.

Figure 5. Local government road expenditure



State and territory road expenditure has increased significantly in recent years, partially driven by a number of large projects and stimulus expenditure designed to support economic growth in the face of challenging conditions.

5.3 Expenditure and Revenue over Time

Figure 6 shows the heavy vehicle cost base and heavy vehicle charges revenue from 2012-13 to 2022-23. In line with increasing government expenditure on roads, the heavy vehicle cost base has increased significantly from 2017-18 onwards.

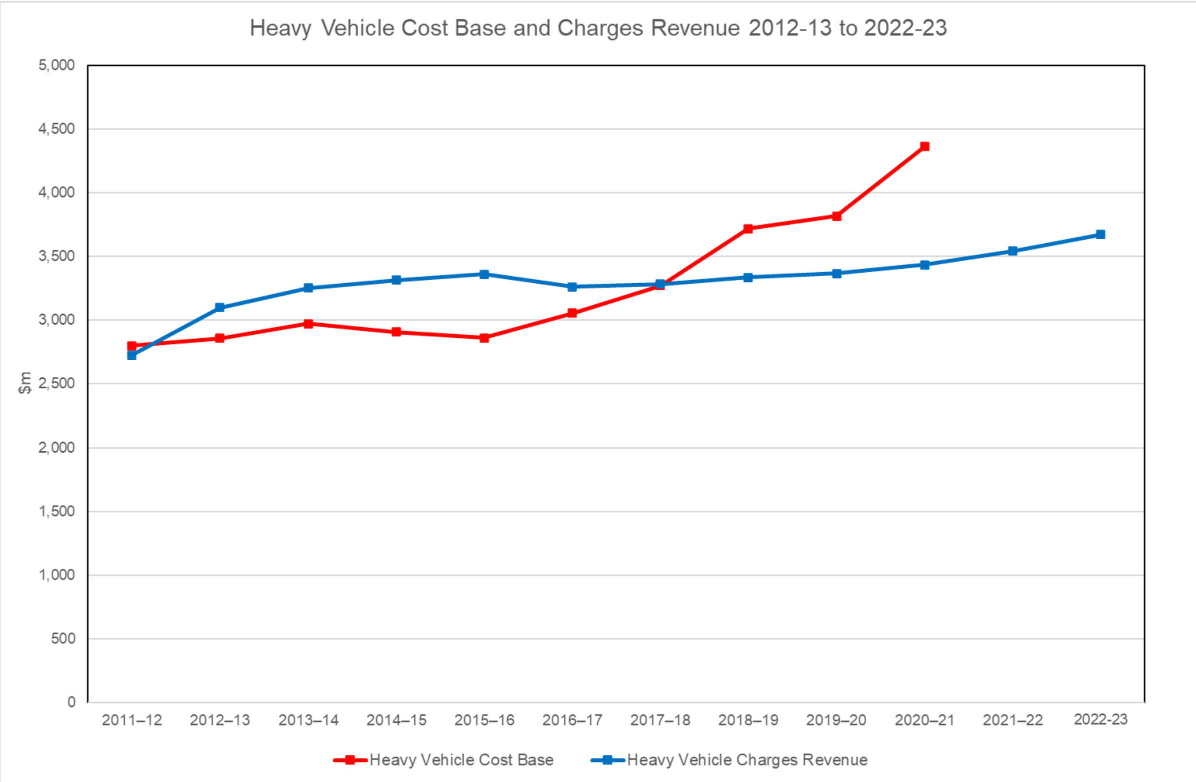
A contributing factor is that particularly large expenditure increases have occurred in expenditure categories where a higher percentage of costs is allocated to heavy vehicles.

Heavy vehicle charges revenue has been more stable, reflecting ITMM's decisions to:

- freeze heavy vehicle charges revenue for two years in 2016-17 and 2017-18
- freeze heavy vehicle charges for three years from 2018-19 2020-21, and
- increase heavy vehicle charges by 2.5 per cent in 2021-22
- identify a preference to increase heavy vehicle charges by 2.75 per cent for 2022-23

The increase of 2.75 per cent for 2022-23 was confirmed by ITMM in April 2022, following a public consultation process. However, the Commonwealth government was in caretaker mode at that time. The RUC rate increased by 2.75 per cent to 27.2 cents/litre from 13 September 2022.

Figure 6. Heavy Vehicle Cost Base and Charges Revenue 2012-13 to 2022-23



Heavy vehicle charges revenue was higher than the heavy vehicle cost base for several years. Recently, this has reversed and the heavy vehicle cost base for 2020-21 exceeds the estimated heavy vehicle charges revenue for 2022-23 (please note the two-year lag between measuring the heavy vehicle cost base and implementing charges intended to reflect the heavy vehicle cost base).

5.4 Developing forecast expenditure, usage and vehicle fleet data forecast for 2021-22 onwards

Approach

Decisions on future heavy vehicle charges are usually based on a combination of known historic information and forecasts. Actual road expenditure data for 2021-22 is now available. However, it will be necessary to form a view of possible future expenditure levels, usage data and heavy vehicle fleets in 2022-23 and 2023-24, particularly if ministers are to consider the option of a multi-year fixed price path.

Similarly, stakeholders will need to form their views on the advantages and disadvantages of various charges options in the context of unknown future outcomes.

To aid stakeholders, the NTC has developed forecasts for the following:

- road expenditure by states and territories for 2022-23 and 2023-24
- local government road expenditure for 2021-22 and 2022-23
- fuel usage in 2022-23 and 2023-24
- heavy vehicle fleets in, 2022-23 and 2023-24

The following sections outline the assumptions and methodology underpinning these forecasts.

Assumptions for road expenditure forecasts

The road expenditure forecast for states, territories and local government is based on the following assumptions:

- Assumed percentage increases in total road expenditure for 2022-23 and 2023-24 are shown in Table 3.
- The forecast future increases in road expenditure shown in Table 3 were developed in consultation with state and territory road agencies. It is important to note that these forecasts are likely to be subject to significant error.
- The forecast future increases in road expenditure are nominal expenditure in the year it is incurred. These figures have not been adjusted for potential unexpected cost increases or delays.
- The forecast total expenditure for 2022-23 and 2023-24 is allocated to individual expenditure categories using the historical average percentage of total expenditure in each category over the five years from 2016-17 to 2021-22.
- For local government expenditure, the long-term growth rate from 2010-11 to 2020-21 was 3.9 per cent per annum with growth of 4.4 per cent per annum in the rural sector and 3.6 per cent per annum in the urban sector. The long-term growth rate for all local road expenditure (rounded to 4 per cent per annum) is applied for 2021-22 and 2022-23.
- Forecast expenditure is allocated between vehicle classes using the cost allocation matrix and forecast usage data.

Table 3. Assumed increases in total state and territory road expenditure

	2022-23	2023-24
Assumed increases in total state and territory road expenditure	20.5%	-2.1%

Assumptions for fuel usage data forecast

Fuel consumption is assumed to be static at 2020-21 levels for 2021-22, 2022-23, 2023-24, 2024-25 and 2025-26. Total fuel consumption in these years is 7,435,912,622 litres per annum. This assumption reflects recent trends in Survey of Motor Vehicle Use data.

Assumptions for vehicle fleet data and registration revenue forecasts

The latest actual vehicle fleet data is for the 2021-22 financial year. It is assumed that the registration charges revenue is calculated based on national registration charges and the forecast vehicle fleet. The forecast is based on vehicle registration data for 2021-22, as provided by each state and territory of registration. Vehicle numbers for 2022-23 and 2023-24 onwards are assumed to increase each year by the average increase in total registered vehicles over the 10 years to 2021-22. This is calculated separately for powered vehicles and trailers and then applied pro-rata to each vehicle class.[8]

The forecast registration revenue in each year is based on the forecast vehicle fleet for that year, multiplied by the charges that would be applicable in that same year for each option.

Departures from national registration charges in NT and WA are not reflected in registration revenue forecasts. Registration charges revenue is stated before any concessions provided by state or territory of registration.

Assumptions for Regulatory Component of Registration Charges

Heavy vehicle registration charges consist of a roads component and a regulatory component. The regulatory component is set to recover the National Heavy Vehicle Regulator's budget, as approved by ITMM. The regulatory component of registration charges does not vary significantly from year to year. Therefore, we have assumed that the regulatory component remains constant at the 2022-23 level. The estimated registration charges shown in Section 7.5 have been prepared on this basis.

5.5 Forecast Heavy Vehicle Cost Base

On the basis of the assumptions outlined in Section 5.4, the forecast heavy vehicle cost base for 2021-22, 2022-23 and 2023-24 is as shown in Table 4 below.

[8] This approach is different form that used in the PAYGO model when setting charges to achieve full cost recovery where it is assumed that the vehicle fleet remains unchanged between the year of cost base measurement and the year that the heavy vehicle charges are applied. The methodology used to forecast registration charges revenue in this consultation paper is likely to be more accurate as it reflects historical rates of growth in the heavy vehicle fleet.

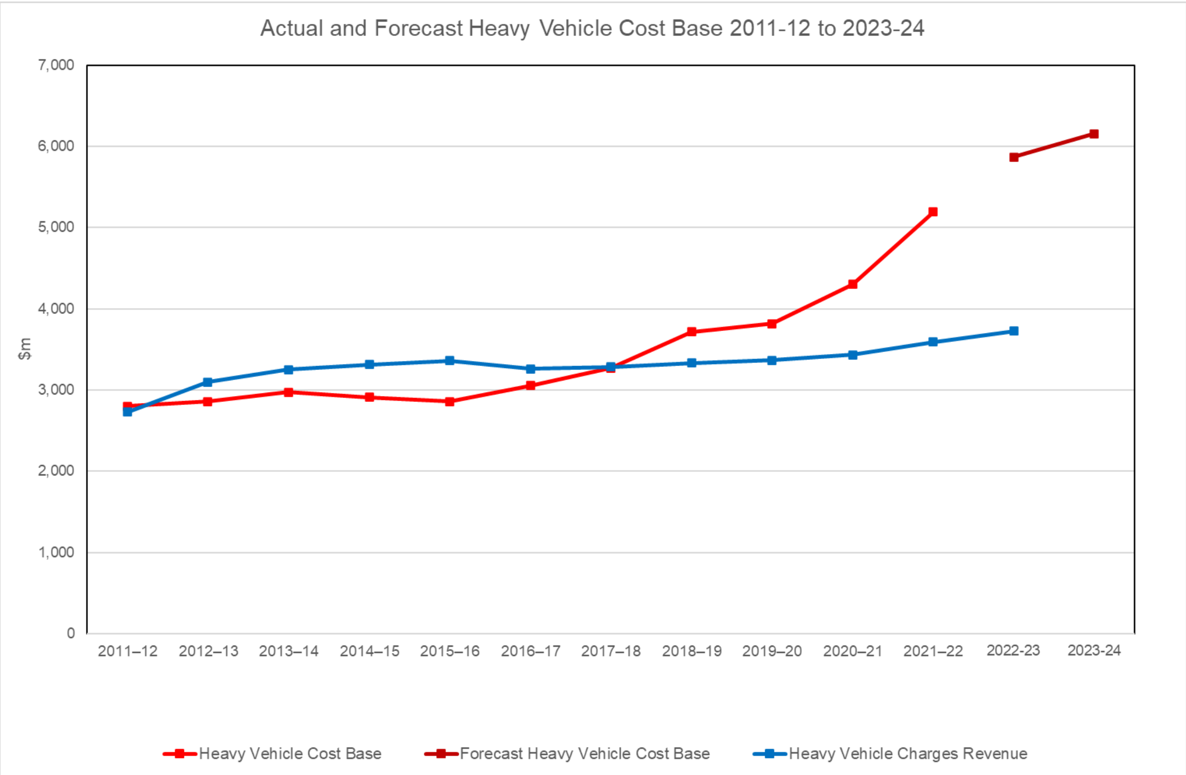
Table 4. Heavy Vehicle Cost base 2021-22 to 2023-24

	2021-22 Actual	2022-23 Forecast	2023-24 Forecast
Heavy vehicle cost base ($m) (excluding technical changes explored in the 2021 Determination)	5,193	5,867	6,153
Increase compared to previous year ($m)	891	674	286
Increase compared to previous year (per cent)	20.7	13.0	4.9

These forecast heavy vehicle cost bases represent a further rapid increase in the heavy vehicle cost base for 2021-22 and 2022-23 followed by slower growth for 2023-24. It is important to note that the figures for 2022-23 and 2023-24 are forecasts only, and that the actual heavy vehicle cost bases will be re-calculated once actual expenditure data for the year is submitted to the NTC.

Figure 7 shows these forecast heavy vehicle cost bases against historical, actual heavy vehicle cost bases.

Figure 7. Actual and Forecast Heavy Vehicle Cost Base 2011-12 to 2023-24



By the time the NTC provides its advice to ministers in late 2022 the figures for the 2022-23 and 2023-24 heavy vehicle cost base will remain forecasts but may be revised if new information becomes available.

Question 1: Are you aware of any relevant information we have not considered sufficiently in developing the forecast heavy vehicle cost bases for 2022-23 and 2023-24?

6 Single-year or Multi-year Price Path

Key points

- The 2021 Determination C-RIS explored the option of setting heavy vehicle charges for multiple years.
- Setting charges on a yearly basis has the advantage of decisions being based on actual data and not requiring decision-makers to take a view of likely future outcomes. However, this approach does not provide industry with sufficient certainty to be able to plan for the medium term. Industry submissions have argued that a lack of advance knowledge of changes makes it difficult to reflect changes in heavy vehicle charges in prices and/or contractual arrangements in a timely manner.
- The 2021 Determination C-RIS identified a three-year price path as being the best trade-off between providing certainty to industry and governments, and the risk that prices set under a fixed price path would get out of line with expenditure trends over time.
- As outlined in the 2021 Determination C-RIS, the NTC recommends that ministers adopt a three-year fixed price pathway.

6.1 Historical approach to implementing determinations

Historically, a specific set of heavy vehicle charges would be implemented in the financial year following ministers' approval of the determination. An annual adjustment process then applied between determinations to ensure heavy vehicle charges revenue kept up with changes in government expenditure.

The annual adjustment initially applied only to registration charges. Over time, this led to an increasing proportion of heavy vehicle charges revenue being recovered through registration charges, whereas the proportion recovered through RUC reduced over time. To avoid this occurring, ministers agreed as part of the 2007 Determination that annual adjustments would apply to registration charges and to RUC.

The annual adjustment was calculated and applied automatically, based on a formula outlined in the Model Law.

Under normal circumstances, this would be the most obvious approach to implementing the heavy vehicle charges approved by ministers as part of this determination. However, this approach is not feasible as it would automatically increase heavy vehicle charges to fully recover the identified heavy vehicle cost base, leading to an increase in heavy vehicle charges of 40.4 per cent. Such a significant increase would arguably impose an unreasonable burden on heavy vehicle operators.

6.2 Single and multi-year price path explored in the 2021 Determination

The 2021 Determination C-RIS explored the option of single or multi-year price paths. Section 6.4 outlined the considerations involved in choosing the length of a multi-year price path. The 2021 Determination C-RIS recommended exploring options for a three-year price path as the best compromise between providing certainty and reducing the risk of the gap between the heavy vehicle cost base and heavy vehicle charges revenue widening significantly during the price period. The following sections briefly summarise the advantages and disadvantages of these alternative approaches.

6.3 Single year price decisions

In recent years, ministers have made decisions on heavy vehicle charges on a yearly basis.

Single year decisions give ministers the ability to tailor heavy vehicle charges decisions to the economic environment existing at the time, including:

- Full knowledge of heavy vehicle cost base and reliable forecast of revenue
- The effect on industry of current and recent events such as bushfires, floods, COVID-19, high fuel prices, inflation, etc.

However, there is a risk of short-term considerations crowding out long-term cost recovery goals.

In addition, yearly decisions on heavy vehicle charges give industry limited certainty, and short notice of price changes are difficult for industry to manage. Difficulties from an industry perspective include:

- Freight rates and contracts with customers usually cannot be adjusted rapidly.
- The lack of certainty around the level of heavy vehicle charges can make medium to long-term business planning difficult.

For both industry and governments, setting heavy vehicle charges on a yearly basis involves relatively high administrative effort.

6.4 Three-year fixed price path decisions

Setting prices to cover three-year periods was recommended by the NTC as part of the 2021 Determination C-RIS.

Setting fixed charges in advance for a three-year period would require ministers to make decisions with limited information for the second and third years of the pricing period. Issues include:

- The heavy vehicle cost base for the second and third year is unknown, and ministers would be deciding on the second and third years without full knowledge of the heavy vehicle cost base if they agree to implement a three-year fixed price path. Given the volatility of road expenditure and therefore the heavy vehicle cost base, forecasts will be prone to error.
- Given the current gap between the heavy vehicle cost base and heavy vehicle charges revenue, there is little risk of setting charges at a level that would see the gap completely eliminated over three years. In addition, the NTC would monitor outcomes

and provide a report to ministers each year. If these reports highlighted a risk of over-recovery, ministers could always take action to avoid this situation should they wish to do so.

Setting charges for three years in advance would require ministers to take a medium-term view on the likely environment in which the heavy vehicle industry operates. This would be likely to reduce the risk of short-term considerations crowding out long-term cost recovery goals compared to the alternative of single year decision-making.

Setting charges for three-year periods would also have some significant advantages, including:

- Industry and government would both have greater certainty about likely future costs and revenues.
- Industry would be in a better position to implement prices reflecting applicable heavy vehicle charges.

This approach would be expected to be administratively more efficient for both governments and industry.

Most submitters to the 2021 Determination C-RIS supported the concept of a three-year fixed price implementation pathway. However, this support was in many cases conditional on the percentage increases adopted, and the amount of certainty that would be provided to industry.

6.5 Recommended approach

Based on the considerations outlined above, the NTC recommends that ministers set heavy vehicle charges for a three-year period beginning in 2023-24.

Setting charges for multiple years could allow prices to be set to commence a longer-term transition to full cost recovery at a measured pace. This needs to recognise both the cost recovery principle underpinning PAYGO and the recognition that moving to full cost recovery immediately would impose an unreasonable burden on heavy vehicle operators.

Agreeing a multi-year price path would also have the potential to reduce administrative and compliance costs for governments and industry.

Recent experience with the need to revisit heavy vehicle charges each year shows this is distracting to both governments and industry and consumes significant administrative resources. These costs could be avoided, at least in part, with a defined multi-year price path.

A three-year price path which is set in advance may offer additional advantages in that it would provide industry with certainty about the heavy vehicle charges that would apply in the medium term, allowing vehicle operators to make better pricing decisions and reflect them in contracts.

6.6 Questions

Question 2: Do you agree with the NTC's recommendation that ministers agree to set charges for a three-year period beginning in 2023-24?

Question 3: Is there anything not considered in the 2021 Determination C-RIS and this paper that needs to be considered when making the decision whether to set prices for a single year or three years?

7 Options for Setting Charges from 2023-24 Onwards

7.1 Applying pricing principles in practice

The pricing principles include the principle of fully recovering infrastructure costs while minimising both the over- and under-recovery from any class of vehicle. They also require us to consider administrative simplicity, efficiency and equity (e.g. impact on regional and remote communities/access).

Currently, heavy vehicle charges revenue is below the identified heavy vehicle cost base. It is unlikely that this gap can be closed immediately or over the three-year period from 2023-24 onwards. On the other hand, it is unlikely that any option that would permanently recover less than the identified cost base would comply with the principle of full cost recovery.

The need to consider efficiency and equity means that options that impose an undue burden on vehicle operators, such as large year-on-year changes, are likely to fail to comply with the efficiency and equity principles. Industry submissions on the 2021 Determination C-RIS highlighted that heavy vehicle operators are constrained in their ability to reflect increases in heavy vehicle charges in the rates they charge their customers.

Our interpretation of the combined pricing principles in the current environment is that they would favour an implementation pathway that pays some regard to the calculated heavy vehicle cost base while, at the same time, keeping yearly increases to heavy vehicle charges within reasonable bounds.

7.2 Three options explored

As any discussion of heavy vehicle charges needs to be based on uncertain forecasts, as developed in Section 4 of this paper, we have chosen to consult on three options for setting heavy vehicle charges.

For illustration, we have developed these options assuming a three-year fixed price approach. However, should ministers decide to set charges for a single year only, these approaches can easily be used to inform successive single-year price setting decisions.

The three options for setting heavy vehicle charges explored in this paper are:

Option 1: Increase heavy vehicle charges by 2.75 per cent per annum: This is the same percentage increase as agreed by ITMM for 2022-23 heavy vehicle charges.

Option 2: Increase heavy vehicle charges by 6 per cent per annum: This is close to the current rate of consumer price inflation. Consumer price inflation was 6.1 per cent in the year ending June 2022.

Option 3: Increase heavy vehicle charges by 10 per cent per annum: This is higher than Option 2 but would still be insufficient to reduce the revenue gap below $1b by Year 3.

Each of these options has a different impact on industry and would result in quite different outcomes in terms of the expected remaining gap between the heavy vehicle cost base and heavy vehicle charges revenue. Based on the forecasts for the heavy vehicle cost base shown in Section 5.5 of this paper, the estimated gaps for each option are shown in Table 5 below.

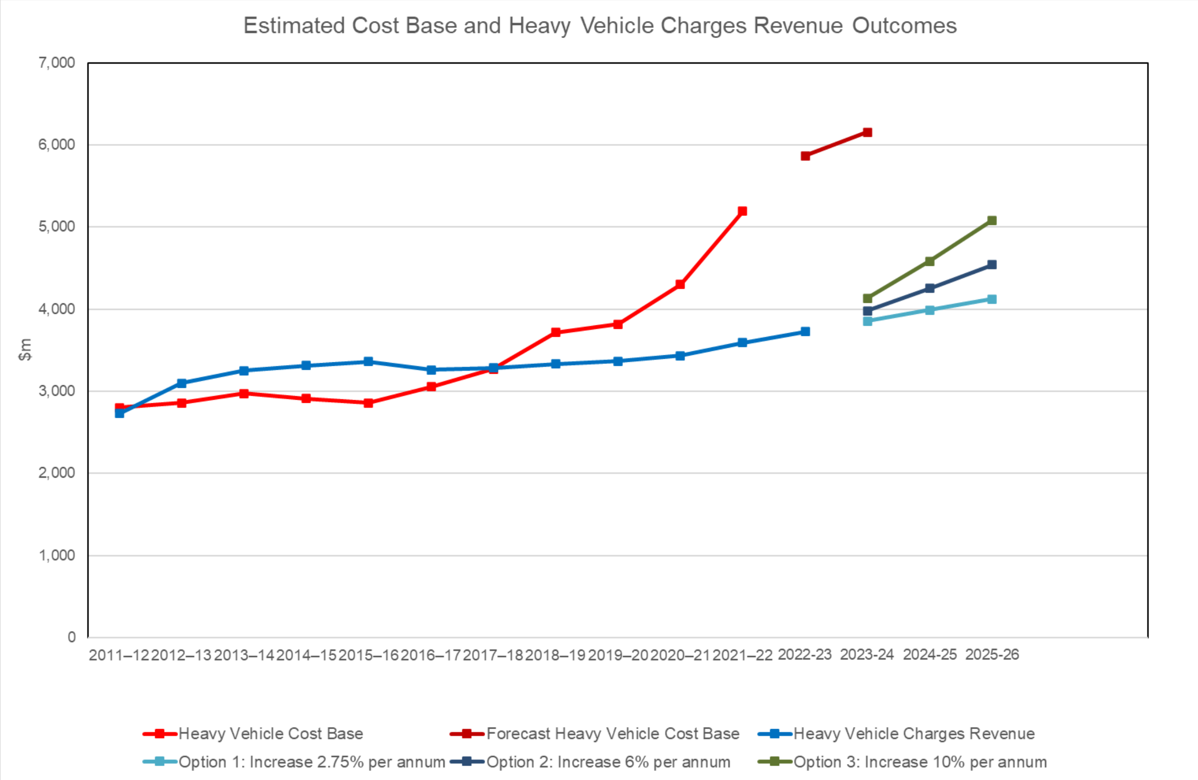
Table 5. Estimated gap under each option

Option	Year 1 $m	Year 1 %	Year 2 $m	Year 2 %	Year 3 $m	Year 3 %
Option 1: Increase heavy vehicle charges by 2.75 per cent per annum	1,337	25.7	1,870	31.9	2,013	32.7
Option 2: Increase heavy vehicle charges by 6 per cent per annum	1,213	23.4	1,617	27.6	1,614	26.2
Option 3: Increase heavy vehicle charges by 10 per cent per annum	1,062	20.5	1,286	21.9	1,073	17.4

7.3 Financial and fiscal implications

Each of the four conceptual approaches outlined in 7.2 would lead to different revenue outcomes. The revenue outcomes and how they compare to the estimated heavy vehicle cost base are illustrated in Figure 8.

Figure 8. Heavy Vehicle Charges Revenue Outcomes by Option



The following tables present the financial and fiscal implications associated with the changes in heavy vehicle charges under each of the three options outlined in Section 7.2. If ministers were to decide to implement heavy vehicle charges for a single year only, then the figures for 2024-25 and 2025-26 should be disregarded.

Table 6. Estimated revenue from the roads component of registration charges and RUC – Option 1: Increase heavy vehicle charges by 2.75 per cent per annum

Option 1	Registration (roads component only) $m	RUC $m	Total $m
2022-23 (Current)	1,705	2,023	3,727
2023-24	1,782	2,075	3,857
2024-25	1,863	2,134	3,997
2025-26	1,947	2,194	4,140
Total over pricing period	5,592	6,402	11,994

Table 7. Estimated revenue from the roads component of registration charges and RUC – Option 2: Increase heavy vehicle charges by 6 per cent per annum

Option 2	Registration (roads component only) $m	RUC $m	Total $m
2022-23 (Current)	1,705	2,023	3,727
2023-24	1,839	2,142	3,980
2024-25	1,983	2,268	4,251
2025-26	2,137	2,402	4,539
Total over pricing period	5,958	6,811	12,770

Table 8. Estimated revenue from the roads component of registration charges and RUC – Option 3: Increase heavy vehicle charges by 10 per cent per annum

Option 1	Registration (roads component only) $m	RUC $m	Total $m
2022-23 (Current)	1,705	2,023	3,727
2023-24	1,908	2,223	4,131
2024-25	2,135	2,446	4,581
2025-26	2,388	2,692	5,080
Total over pricing period	6,431	7,362	13,793

7.4 Estimated RUC rates

Table 9 shows the estimated RUC in cents per litre of diesel fuel that would apply over the three years from 2023-24 to 2025-26 under the four conceptual approaches to setting heavy vehicle charges.

Table 9. Road user charge under each option (cents per litre)

Option	Current 2022-23	2023-24	2024-25	2025-26
Option 1: Increase heavy vehicle charges by 2.75 per cent per annum	27.2	27.9	28.7	29.5
Option 2: Increase heavy vehicle charges by 6 per cent per annum		28.8	30.5	32.3
Option 3: Increase heavy vehicle charges by 10 per cent per annum		29.9	32.9	36.2

The RUC rate on gaseous fuels would be increased in parallel with increases in the RUC rate on diesel fuel. Table 10 shows the RUC rate that would apply on gaseous fuels over the three years from 2023-24 to 2025-26 under the four conceptual approaches for setting heavy vehicle charges.

Table 10. RUC rate on gaseous fuels under each conceptual approach (cents per kg)

Conceptual approach	Current 2022-23	2023-24	2024-25	2025-26
Option 1: Increase heavy vehicle charges by 2.75 per cent per annum	36.3	37.3	38.3	39.4
Option 2: Increase heavy vehicle charges by 6 per cent per annum		38.5	40.8	43.2
Option 3: Increase heavy vehicle charges by 10 per cent per annum		39.9	43.9	48.3

7.5 Estimated heavy vehicle registration charges

Tables 11, 12 and 13 outline the total registration charge (including both the roads and regulatory components) that would apply to common heavy vehicle classes under each conceptual approach.

Table 11. Registration charges for common vehicle types: Option 1: Increase heavy vehicle charges by 2.75 per cent

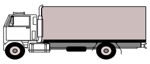
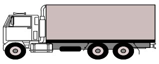
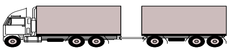
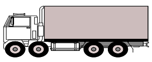
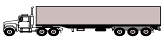
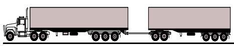
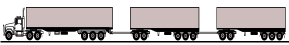
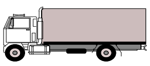
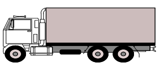
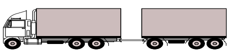
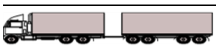
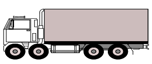
Vehicle type	Mass rating for charging	Current (2022–23)	2023-24	2024-25	2025-26
	Up to 12.0 t	629	639	650	661
	Over 12.0 t	1,013	1,046	1,079	1,114
	Up to 42.5 t	2,389	2,452	2,517	2,584
	Up to 16.5 t	988	1,021	1,054	1,089
	Over 16.5 t	1,185	1,222	1,260	1,300
	Up to 42.5 t	3,211	3,293	3,379	3,467
	Over 42.5 t	12,018	12,461	12,925	13,406
	Over 42.5 t	12,665	13,123	13,603	14,100
	Up to 20.0 t	1,003	1,036	1,069	1,104
	Over 20.0 t	1,206	1,243	1,281	1,321
	Up to 12.0 t	529	537	545	554
	Over 12.0 t	659	673	688	703
		2,794	2,895	3,001	3,111
		6,530	6,680	6,830	6,984
		15,488	15,844	16,200	16,568
		15,544	15,900	16,256	16,624
		17,400	17,801	18,199	18,612

Table 12. Registration charges for common vehicle types: Option 2: Increase heavy vehicle charges by 6 per cent

Vehicle type	Mass rating for charging	Current (2022–23)	2023-24	2024-25	2025-26
	Up to 12.0 t	629	654	680	707
	Over 12.0 t	1,013	1,070	1,131	1,197
	Up to 42.5 t	2,389	2,518	2,657	2,805
	Up to 16.5 t	988	1,045	1,106	1,172
	Over 16.5 t	1,185	1,250	1,319	1,394
	Up to 42.5 t	3,211	3,384	3,570	3,768
	Over 42.5 t	12,018	12,829	13,702	14,638
	Over 42.5 t	12,665	13,512	14,424	15,401
	Up to 20.0 t	1,003	1,060	1,121	1,187
	Over 20.0 t	1,206	1,271	1,340	1,415
	Up to 12.0 t	529	548	567	588
	Over 12.0 t	659	684	710	738

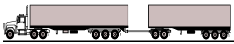
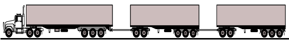
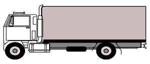
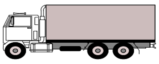
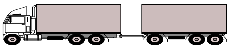
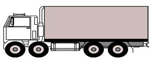
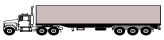
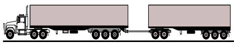
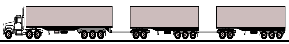
Vehicle type	Mass rating for charging	Current (2022–23)	2023-24	2024-25	2025-26
		2,794	2,973	3,165	3,371
		6,530	6,875	7,239	7,624
		15,488	16,309	17,176	18,093
		15,544	16,365	17,232	18,149
		17,400	18,320	19,292	20,320

Table 13. Registration charges for common vehicle types: Option 3: Increase heavy vehicle charges by 10 per cent

Vehicle type	Mass rating for charging	Current (2022–23)	2023-24	2024-25	2025-26
	Up to 12.0 t	629	671	717	767
	Over 12.0 t	1,013	1,100	1,198	1,306
	Up to 42.5 t	2,389	2,600	2,834	3,092
	Up to 16.5 t	988	1,075	1,173	1,281
	Over 16.5 t	1,185	1,284	1,395	1,518
	Up to 42.5 t	3,211	3,496	3,811	4,159
	Over 42.5 t	12,018	13,282	14,689	16,255
	Over 42.5 t	12,665	13,991	15,466	17,107
	Up to 20.0 t	1,003	1,090	1,188	1,296
	Over 20.0 t	1,206	1,305	1,416	1,539
	Up to 12.0 t	529	561	595	633
	Over 12.0 t	659	697	739	785
		2,794	3,068	3,373	3,713
		6,530	7,120	7,765	8,469
		15,488	16,892	18,428	20,106
		15,544	16,948	18,484	20,162
		17,400	18,975	20,697	22,576

7.6 Effect of recommendations from 2021 Heavy Vehicle Charges Determination

The NTC has estimated that implementing all technical changes explored in the 2021 Determination would add approximately $150m to the heavy vehicle cost base.

As all the conceptual options for setting heavy vehicle charges from 2023-24 onwards either involved fixed percentage changes, or changes that reflect changes in the identified heavy vehicle cost base, the technical changes would have no effect on the conceptual options explored.

However, implementing the technical changes would have the effect of increasing the gap between the heavy vehicle cost base and heavy vehicle charges revenue.

8 Alternative approaches to rounding heavy vehicle charges

The PAYGO model was originally developed with the overarching objective of determining a combination of nationally consistent RUC and registration charges that would be expected to recover the identified heavy vehicle cost base.

In this model, both RUC and registration charges are calculated to multiple decimals. This is required to ensure estimated revenue precisely recovers the cost base. Heavy vehicle charges have not been set with reference to a specific revenue target since 2017-18.

In recent years, charges have typically been increased by a percentage as approved by ministers, rather than to recover a specific amount. Under this approach, the NTC has applied percentage increases to unrounded heavy vehicle charges, and then rounded the result. The rounded result is then recommended to ministers as a specific charge to approve. Rounding for registration charges is to the next full dollar whereas the RUC rate is rounded to the next 0.1 cent per litre, as required under the Fuel Tax Act 2006 (Cth).

Using RUC as an example, Table 14 shows how percentage increases were applied to the unrounded RUC.

Table 14. Current approach to rounding illustrated

Financial Year	Unrounded RUC rate (cents/litre)	Percentage change applied	Actual, rounded RUC rate	Notes
2015/2016	26.13750	0.60%	26.14	Last year where RUC set to two decimals. Starting point for subsequent calculations.
2016/2017	25.90226	-0.90%	25.9	First year where RUC set to single decimal. Overall level of HV charges revenue frozen.
2017/2018	25.79865	-0.40%	25.8	Overall level of HV charges revenue frozen
Heavy vehicle charges were frozen at 2017-18 levels from 2018-19 to 2020-21				
2021/2022	26.44362	2.5	26.4	ITMM agrees to increase charges by 2.5 per cent

2022/2023	27.17082	2.75	27.2	ITMM agrees to increase heavy vehicle charges by 2.75 per cent

On the one hand, this approach minimises the cumulative effect of rounding over time. On the other hand, stakeholders may identify that the difference between two RUC rates rounded to the nearest 0.1 cents per litre does not precisely reflect the percentage increase described.

To avoid any doubt, in reports to ministers, the NTC identifies both the headline percentage change and the specific registration charges and RUC rate to be implemented in all consultation papers and reports to ministers.

An alternative would be to apply approved percentage changes to rounded heavy vehicle charges, as approved by ministers, and identified in the Model Law for registration charges and the legislative instrument made by the Federal Transport Minister to set the RUC rate. The end result would then be rounded again to derive the specific rates to be recommended to ministers. Table 15 shows how this could work.

Table 15. Alternative approach to rounding illustrated

Financial Year	Unrounded RUC rate	Percentage change applied	Actual, rounded RUC rate	Notes
2015/2016	N/A	N/A	26.14	Last year where RUC set to two decimals. Starting point for subsequent calculations.
2016/2017	25.90474	-0.90%	25.9	First year where RUC set to single decimal. Overall level of HV charges revenue frozen.
2017/2018	25.7964	-0.40%	25.8	Overall level of HV charges revenue frozen
Heavy vehicle charges were frozen at 2017-18 levels from 2018-19 to 2020-21				
2021/2022	26.445	2.5	26.4	ITMM agrees to increase charges by 2.5 per cent
2022/2023	27.126	2.75	27.1	ITMM agrees to increase heavy vehicle charges by 2.75 per cent

The advantage of this approach is that the changes in the heavy vehicle charges would be applied to the specific rates set out in the Model Law for registration charges or the legislative instrument for RUC, and then rounded. Year-on-year changes could be easier for the public to understand and reconcile. On the other hand, over multiple years, this approach could lead to a larger cumulative effect of rounding. Over time, it could also slightly change the percentages of total revenue recovered by the Commonwealth and states and territories, respectively.

In addition, this approach would arguably make it more complex to set heavy vehicle charges to recover a specific revenue target again in the future, should ministers wish to pursue this.

In Question 4, we are seeking stakeholder feedback on which approach to rounding they prefer.

8.1 Questions

Question 4: Do you consider that the NTC should retain the current approach to modelling heavy vehicle charges to multiple decimals and rounding the end result only, or do you support the alternative approach of applying percentage changes to rounded heavy vehicle charges, and then rounding the end result?

9 Conclusion and next steps

9.1 Pricing Principles

When assessing the conceptual approaches developed in Section 7, the NTC is bound by the pricing principles.

The COAG principles[9] are:

"ATC direct the NTC, in developing its Determination, to apply principles and methods that

1. *ensure the delivery of full cost recovery in aggregate,*
2. *further develop indexation adjustment arrangements to ensure the ongoing delivery of full expenditure recovery in aggregate and*
3. *remove cross-subsidisation across different heavy vehicle classes,*

recognising that transition to any new arrangement may require a phased approach".

ATC/SCOTI guiding principles[10]

"National heavy vehicle road use prices should promote optimal use of infrastructure, vehicles and transport modes. This is subject to the following:

1. *full recovery of allocated infrastructure costs while minimising both the over and under recovery from any class of vehicle*
2. *cost effectiveness of pricing instruments*
3. *transparency*
4. *the need to balance administrative simplicity, efficiency and equity (e.g. impact on regional and remote communities/access)*
5. *the need to have regard to other pricing applications such as light vehicle charges, tolling and congestion."*

Both the ATC and COAG principles are standing principles until the relevant authority changes them and are binding on the NTC.

9.2 Analysis of options

Applying the pricing principles

Of the pricing principles, the following are most relevant to the options under consideration:

- fully recovering infrastructure costs while minimising both the over- and under-recovery from any class of vehicle

[9] Endorsed at its meeting of 13 April 2007.

[10] Approved by ATC in August 2004 and reaffirmed in May 2007. Note: SCOTI is the Standing Council on Transport and Infrastructure, a predecessor of ITMM.

- administrative simplicity, efficiency and equity (e.g. impact on regional and remote communities/access).

Currently, heavy vehicle charges revenue is below the identified heavy vehicle cost base. It is unlikely that this gap can be closed immediately or over the three-year period from 2023-24 onwards unless ministers would be comfortable with increases in the order of 14.5 per cent per annum over three years. On the other hand, it is unlikely that any option that would permanently recover less than the identified cost base would comply with the principle of full cost recovery.

The need to consider efficiency and equity means that options that impose an undue burden on vehicle operators, such as large year-on-year changes, are likely to fail to comply with the efficiency and equity principles. Industry submissions on the 2021 Determination C-RIS highlighted that heavy vehicle operators are constrained in their ability to reflect increases in heavy vehicle charges in the rates they charge their customers.

Increases in heavy vehicle charges are likely to be reflected in freight charges in the longer term. This means that there is a potential for increases in heavy vehicle charges to contribute towards inflationary pressure for goods transported by truck. Rural and remote communities would be likely to be most affected by increases in truck freight costs.

Other issues that need to be considered are the revenue implications for governments, and their implications for the amount of funding taxpayers need to contribute towards the construction and maintenance of roads. In this context, any shortfall in revenue below the heavy vehicle cost base needs to be made up by taxpayers in general.

Our interpretation of the combined pricing principles in the current environment is that they would favour an implementation pathway that balances the agreed need for full cost recovery over time with keeping yearly increases to heavy vehicle charges within reasonable bounds.

Table 16 shows the NTC's current ranking of options against four criteria where 1 is best and 3 worst:

- Ability to achieve full cost recovery over time
- Effect on equity, impact on regional and remote communities
- Affordability for industry
- Revenue implications for governments

Table 16. Ranking of options

Option	Ability to achieve full cost recovery over time	Effect on equity, impact on regional and remote communities	Affordability for industry	Revenue implications for governments
Option 1: Increase heavy vehicle charges by 2.75 per cent per annum	3	1	1	3
Option 2: Increase heavy vehicle charges by 6 per cent per annum	2	2	2	2
Option 3: Increase heavy vehicle charges by 10 per cent per annum	1	3	3	1

9.3 Next steps

This consultation period ends at 5.00pm on Wednesday, 12 October 2022. The NTC will summarise all submissions and provide final recommendations to ministers in December 2022.

9.4 Questions

Question 5: What are your views on the NTC's initial analysis of options in Section9.2, and the ranking in Table 16?

Question 6: Which of the options explored do you view most favourably, and what are the key reasons for this?

Question 7: Is there any relevant additional information that should be considered by the NTC in providing its final recommendations to ministers in December 2022?

Glossary

Include a glossary of terms for complex or technical documents.

Term	Definition
Heavy vehicle cost base	The heavy vehicle cost base is that share of national government road expenditure that can be attributed to the heavy vehicle sector in the PAYGO model.
Infrastructure and Transport Ministers Meeting (ITMM)	The Infrastructure and Transport Ministers Meeting (ITMM) brings together Commonwealth, State and Territory Ministers with responsibility for transport and infrastructure issues, as well as the Australian Local Government Association.
PAYGO	Pay As You Go (PAYGO) is an approach used to determine the amount to be recovered from heavy vehicles through heavy vehicle charges. Trend levels of road construction and maintenance expenditure and road use is assessed over the past seven years to reflect the annualised costs of providing and maintaining roads.
Registration charge	The annual registration charge that applies to heavy vehicles by vehicle and trailer type.
Regulatory component of registration charge	The regulatory component of the heavy vehicle registration charge is applied to each heavy vehicle and trailer type and is based on the heavy vehicle fleet and the budget of the National Heavy Vehicle Regulator.
Roads component of registration charge	The roads component of the heavy vehicle registration charge is applied to each heavy vehicle and trailer type and is determined by outcomes from the PAYGO model based on heavy vehicle allocated cost and use.
Road expenditure	Road expenditure includes all government arterial and local road expenditure that meets NTC guidelines for inclusion in the PAYGO cost base.
RUC	Road User Charge. The Road User Charge is the charge that is applied to heavy vehicle fuel use expressed in cents per litre or cents per kilogram.

References

National Transport Commission 2021, *Heavy vehicle charges determination: consultation regulation impact statement*, NTC,
Melbourne

List of tables and figures

Tables

Figures

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