



**AUSTRALIAN  
AUTOMOBILE  
ASSOCIATION**

Constituent Members



# Reform of Fuel Tax and other Motoring Taxes and Charges: Submission to Henry Review of Taxation

October 2008

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# Table of Contents

ABOUT THE AUSTRALIAN AUTOMOBILE ASSOCIATION .....	3
RECOMMENDATIONS.....	4
1 INTRODUCTION .....	5
2 TAX REFORM AND ROAD PRICING.....	6
3 FUEL TAXATION REFORM .....	7
3.1 Revenue raising .....	8
3.2 Revenue and expenditure on roads need to be linked .....	8
3.3 Tax rates vary by fuel type .....	9
3.4 Fuel excise is regressive and inequitable.....	10
3.5 Tax on a tax .....	10
3.6 Luxury car tax .....	11
3.7 Tariffs .....	11
3.8 NTC charges for heavy vehicles .....	12
3.9 How road user charges should be set.....	13
3.9.1 Costs (and charges) for pavement wear (road damage).....	14
3.9.2 Costs (and charges) for road crashes .....	17
3.9.3 Costs (and charges) for air pollution and noise pollution.....	18
3.9.4 Costs (and charges) for greenhouse emissions .....	20
3.9.5 Costs (and charges) for congestion .....	22
4 A PRACTICAL SYSTEM .....	24
5 STATE REGISTRATION CHARGES .....	24
6 STAMP DUTY .....	26
7 CONCLUSION .....	27

## About the Australian Automobile Association

The Australian Automobile Association (AAA) serves as the federal secretariat of the State and Territory motoring clubs, which comprise:

- National Roads and Motorists' Association (NRMA) Motoring and Services;
- Royal Automobile Club of Victoria (RACV);
- Royal Automobile Club of Queensland (RACQ);
- Royal Automobile Association of South Australia (RAASA);
- Royal Automobile Club of Western Australia (RACWA);
- Royal Automobile Club of Tasmania (RACT);
- Automobile Association of Northern Territory (AANT); and
- Royal Automobile Club of Australia (RACA).

Through these organisations, the AAA represents the interests of more than 6 million motorists and, indirectly, all Australian motorists at the national and international levels.

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October 2008

## Recommendations

1. AAA recommends that any reform of fuel tax and other motoring taxes, charges and fees should ensure that there is no net increase in the overall cost of motoring.
2. AAA recommends that fuel excise should be abolished and that the appropriate tax on all fuels for revenue raising should only be GST, with no distinction for on-road/off-road use.
3. AAA recommends that there be a direct charge for the use of roads with a clear link between revenue from the charge and expenditure on land transport infrastructure.
4. AAA recommends that fuel excise be abolished and replaced with a road user charge whereby road users pay for the full social costs of their road use.
5. AAA recommends that a road user charge have two components: an access charge and a user charge; the access charge would be minimal and reflect the costs of vehicle registration for security and other administrative reasons; and the user charge, in theory, should cover external costs of road use such as pavement wear (damage), crashes, air and noise pollution, greenhouse gases (climate change) and congestion.
6. AAA recommends that road user charges should be designed to minimise complexity and transaction costs, while also funding infrastructure and reducing external costs.
7. AAA recommends that in practice, it would be more efficient to address crash costs through direct measures (such as improved vehicle safety, better road infrastructure, pay as you drive insurance directed at creating safer drivers) rather than via a user charge.
8. AAA recommends that in practice, it would be more efficient to address air and noise pollution costs through direct measures such as improved vehicle emission standards and fuel quality, rather than via a user charge.
9. AAA recommends that a carbon price be included in a road user charge to address climate change; however, the Government's proposed response to offset the price impact under emissions trading is the right policy response in the current circumstances with a fuel tax in place and should be seen as a first step towards reforming fuel tax.
10. AAA recommends that in practice, congestion charging should be a matter for State governments and only introduced after consultation with stakeholders; where it is introduced, charges should only apply where congestion exists and be time and location specific.
11. AAA recommends the abolition of the Luxury Car Tax.
12. AAA recommends nationally consistent and minimal registration charges for passenger motor vehicles.
13. AAA recommends the removal of stamp duty on vehicle registration.

# 1 Introduction

Unlike other forms of national infrastructure such as telecommunications, gas, water, electricity and other forms of transport, where charges include an access charge and usage charges – some of which vary by time of day - roads stand out as not being subject to user pays pricing rules. Roads are for the most part provided by Governments out of consolidated revenue and motorists are charged for their use through a variety of mechanisms, some of which are only loosely related to their use. There is no link between revenue collected and spending on roads.

AAA and its Constituent Clubs, which collectively represent more than 6 million motorists, have long argued for the removal of the current arrangements for charging motorists and replacing them with a market-based solution. The way motorists should be charged and the way revenue collected should be used to build and maintain new road infrastructure was clearly set out in AAA's detailed submission to the Fuel Taxation Inquiry in 2001. Our views have not changed since then. In essence, we have argued for the removal of fuel excise, review of other taxes and charges and implementing an access charge and usage charges. The technology is available now to charge road users directly for using the road network.

In this Submission, we comment principally on the shortcomings of current fuel taxation arrangements and put forward a tax reform proposal for consideration by the Henry Tax Review which could be implemented in the medium-to-long-term.<sup>1</sup> We argue that the community should be better off from such reform and identify the magnitude of some of the specific charges for road use, specifically those relating to pavement wear and greenhouse emissions. We also comment on some related issues tied to State-based motoring taxes and charges since we believe that the current tax review should extend to reviewing these imposts as well.

The Submission deals directly with the Government's announced review of 'Australia's Future Tax System' and specifically the following Terms of Reference:

*Enhancing the taxation arrangements on consumption (including excise taxes), property (including housing), and other forms of taxation collected primarily by the States.*

Apart from being a Submission to the Henry Review of Taxation, it is also intended to inform the debate already underway within the Council of Australian Governments (COAG) on congestion, and broader reform being contemplated by the National Transport Commission (NTC) through its Strategic Planning Framework that is being considered by Infrastructure Australia and the COAG Working Groups contributions to the National Transport Plan. The Working Group 'Economic Framework for an Efficient Transportation Market Place' is particularly relevant in this context.

The Submission draws heavily on two specific AAA submissions and a report that have addressed reform of fuel taxation in recent years:

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<sup>1</sup> Although AAA is putting forward an agenda for reform today, we recognise that it will take some time to implement. In the short-term, pending reform, AAA seeks an increase in the amount of revenue from fuel excise allocated to land transport infrastructure.

- *Towards a Fairer Fuel Tax Policy*, Australian Automobile Association submission to the Fuel Taxation Inquiry Committee, October 2001;<sup>2</sup> and
- *Road and Rail Freight Infrastructure Pricing*, Australian Automobile Association submission to the Productivity Commission Inquiry, May 2006.<sup>3</sup>

## 2 Tax reform and road pricing

The Government's review of 'Australia's Future Tax System' provides an ideal opportunity to review and reform the range of taxes and charges that motorists face at the Federal and State levels.

At the national level, motorists pay fuel excise of 38.143cpl which in 2007-08 raised \$14.46 billion.

At the State level, the major taxes impacting on motorists include registration fees and stamp duty on the registration of motor vehicles. Revenue from registration fees is estimated to total around \$4 billion. We are aware that revenue from stamp duty on vehicle registrations in some States is around half that for registration, which indicates that stamp duty from motor vehicles may be around \$2 billion. Further analysis is required to confirm this assessment.

Reform of fuel taxation offers a rare opportunity for the Federal Government - and collaboratively with the States perhaps through COAG - to consider the adoption of road pricing, or what we prefer to call road user charging.

Road user charging can be used to achieve multiple objectives, including tackling congestion, improving the environment, to raise funds to reinvest in transport and to modify the current means of road user taxation. It will also ensure greater transparency in the way motorists are charged and should reduce the burden of motoring taxes and charges that they currently face.

Road user charging can also take many forms and can cover a wide means of paying for road use, such as area wide congestion charging schemes similar to those implemented in London and Singapore, link specific pricing as it applies to toll roads in Sydney, Melbourne and Brisbane and national GPS-based schemes such as that being implemented in the Netherlands which will be used to charge for distance driven.

In Australia, a rather blunt form of national road charging for heavy vehicles (over 4.5 tonnes) has been in place since 1992, but it involves no electronic tolling. Rather, the system of heavy vehicle charging uses historical road construction and maintenance expenditure and attempts to set charges to recover the expenditure on the basis of costs imposed by each vehicle class according to a range of parameters such as VKT, ESA-km, AGM-km and PCU-km.<sup>4</sup> The charges are determined by the National Transport Commission (NTC) and the system is referred to as pay-as-you-go (PAYGO).

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<sup>2</sup> <http://www.aaa.asn.au/documents/submissions%2F2001%2Ffueltaxation.pdf>

<sup>3</sup> [http://www.aaa.asn.au/documents/submissions%2F2006%2FPC\\_Pricing\\_Final.pdf](http://www.aaa.asn.au/documents/submissions%2F2006%2FPC_Pricing_Final.pdf)

<sup>4</sup> VKT: vehicle kilometres travelled; ESA: equivalent standard axles – a measure of the relative road wear of different axles carrying different loads; AGM: Average Gross Mass – an average of the total mass of a vehicle and its load; PCU: Passenger Car Equivalents

In New Zealand, the cost of using New Zealand's roads is recovered from road users via levies on the price of some fuels or through road user charges (RUC).

Road user charges in New Zealand are applicable to vehicles over 3.5 tonnes manufacturer's gross laden weight and all vehicles of 3.5 tonnes or less powered by a fuel not taxed at source. Heavy vehicle operators are required to purchase distance licences, in units of 1000km. The cost varies according to vehicle type (number of axles and tyres per axle). All vehicles that operate with distance licences must be fitted with a distance recorder. The licence must also cover the gross weight of the vehicle and the RUC is calculated on the assumption that a vehicle travels at least 50 per cent of the time unladen. The revenue collected from road user charges is dedicated to the National and Regional Land Transport funds.

In December last year, the Dutch Transport Minister announced that a road-user charge using the latest satellite technology to register distance driven will be introduced and it will be accompanied by lower fixed charges for road users. Under the new system, to be introduced for trucks in 2011 and for cars in 2012, motorists will no longer pay road tax - equivalent to registration fees in Australia - or sales tax on new cars - akin to stamp duty on registration of new cars or transfer of ownership.

While the Netherlands has taken the bold step of introducing road pricing, other countries are seriously considering changes to fuel taxation arrangements. In 2004, the UK's Treasurer formally suggested a move from fuel taxes to road user charging, proposing a GNSS-based<sup>5</sup>, nationwide, variable time-distance-place charge. Motorists would pay by the mile, depending on where and when they drove. He called it "a radically different approach".

US Secretary of Transportation, Mary Peters, has also taken a bold stance against fuel tax. In a White Paper<sup>6</sup> released by her, she details the faults of fuel taxes; its ineffectiveness at reducing congestion; its inefficient use of resources; its unsustainability; and its unpopularity compared with effective alternatives.

### 3 Fuel Taxation Reform

The current fuel taxation arrangements have numerous shortcomings, including the fact that the current level of fuel taxation can no longer be justified on revenue raising grounds; tax rates vary by fuel type; current arrangements fail to achieve an efficient use of roads; the NTC methodology for determining truck charges is not efficient, resulting in cars being overcharged compared to heavy vehicles; and fuel excise is regressive and inequitable.

In this Section we elaborate on the shortcomings and identify reform proposals to address each of them.

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<sup>5</sup> Global Navigation Satellite System (GNSS) is the standard generic term for satellite navigation systems that provide autonomous geo-spatial positioning with global coverage. A GNSS allows small electronic receivers to determine their location (longitude, latitude and altitude) to within a few metres using time signals transmitted along a line of sight by radio from satellites.

<sup>6</sup> [http://financecommission.dot.gov/Documents/Transportationissues\(2\).doc](http://financecommission.dot.gov/Documents/Transportationissues(2).doc)

### 3.1 Revenue raising

Traditionally, one argument used to justify fuel excise as an efficient instrument to raise revenue is that since demand is relative insensitive to the price of fuel, it is optimal to tax it more heavily than a commodity with a much higher price elasticity of demand. In this way, the scope for substitution is minimised and a given amount of revenue can be raised with a less distorting impact on resource allocation.

One problem with this argument in the case of fuels is their extensive use as inputs to production. Although many so-called eligible industries are able to claim fuel tax credits – and legislative changes in recent years have extended those industries able to claim rebates - excises on fuel ‘cascade’ throughout the economy to impose highly differentiated taxes on individual industries according to their direct and indirect use of fuel. If an industry is unable to recoup, through higher selling prices, the additional production costs imposed by the fuel excise, as is the case with industries exporting or facing strong import competition, then industry competitiveness and profitability are reduced.

An alternative to taxing commodities with low price elasticity of demand is to tax final consumption of all goods and services at the same rate. Indeed, the Government accepted the proposition that the least distorting way to raise revenue is through a uniform tax on all goods and services by introducing a GST of 10 per cent in July 2000. The scheme is broadly based, transparent, avoids the taxation of intermediate inputs, does not distort relative prices between goods and services and hence does not encourage substitution between them.

And one of the claims made to justify the introduction of a broadly based GST to replace the old narrowly based and uneven wholesale sales tax system was that it would avoid the need to rely on taxing a narrow range of commodities. Fuel is one such commodity and it is our view, therefore, that the current level of fuel taxation cannot be justified on revenue raising grounds.

#### **Recommendation**

AAA recommends that fuel excise should be abolished and that the appropriate tax on all fuels for revenue raising should only be GST, with no distinction for on-road/off road use.

### 3.2 Revenue and expenditure on roads need to be linked

Following the announcement of increased road expenditure in this year’s Federal Budget, the amount allocated by the Commonwealth Government to roads over the next four years will be equivalent to revenue of around 10cpl of fuel excise from the total amount of 38.1cpl. While this represents an increase from around 7cpl over the past four years, there is still a huge disparity between the amount collected (\$14 billion in 2007-08) and the amount allocated to roads (\$3.6 billion for the same period). And the difference between the amount spent and the amount collected is huge compared to the start of the 1980s when Commonwealth funds for roads represented around 75 per cent of excise revenue.

In a survey of motorists conducted by ANOP on behalf of AAA in 2007, respondents were informed about how much of the fuel tax was spent on roads and were asked to comment on its adequacy. 93 per cent reported that it should be higher. This was the highest response received since surveys were first conducted by AAA in 1995 and confirms that a greater proportion of revenue from fuel excise should be spent on land transport infrastructure, including public transport.

It is worth noting that in New Zealand, all the revenue collected from road user charges goes into a National Land Transport Fund. AAA recommends a similar approach, whereby all revenue from road user charges is directed towards a corporatised road management agency and invested in land transport infrastructure.

There is substantial backing in the literature for a move towards a public utility approach to road pricing, where there is a direct charge linking the use of road infrastructure to its provision. This policy shift would follow other microeconomic reforms over the past two decades, which have led to the privatisation or corporatisation of many utilities that were previously Australian government owned and operated.

### **Recommendation**

AAA recommends that there be a direct charge for the use of roads with a clear link between revenue from the charge and expenditure on land transport infrastructure.

### 3.3 Tax rates vary by fuel type

The tax rates on fuels that are close substitutes vary quite significantly. Petrol and diesel are taxed at 38cpl. No excise applies to LPG. Ethanol is effectively tax free with production subsidies used to offset an import tariff.

The rationale for LPG's preferential treatment is unclear. While combustion of LPG is 'cleaner' than that of petrol, it still releases pollutants. And to the extent that a fuel excise is argued on revenue and road user charging grounds, current arrangements imply that LPG users have no obligation to contribute to consolidated revenue or pay for their use of roads.

The same can be said for motorists using ethanol blends. And the policy of industry assistance by way of excise subsidy could also be questioned.

In the case of diesel, some users are provided rebates. Heavy vehicles enjoy an on-road grant, or rebate, of 18.51cpl from the excise of 38.143 that is payable. The difference is referred to as a non-hypothecated road user charge of 19.633cpl.

Fuels used in different transport modes are taxed differently, possibly encouraging intermodal substitution. And with one-third of petrol and almost all diesel used as an input to business production, excises are a tax on production, they reduce the international competitiveness of those industries with intensive direct and indirect use of fuel.

Some States, notably Queensland and New South Wales, provide subsidies for petrol and diesel. In Queensland the subsidy is 8.4cpl with retailers expected to pass on 8.354cpl to motorists. Given that GST applies to fuel excise, and assuming that costs and profits are the same in all mainland capital cities, retail prices in Brisbane should,

in theory be 9.4cpl lower than other capital cities.

In NSW, under the Petroleum Products Subsidy Scheme, subsidies vary across five zones that are determined by latitude across the State. The subsidy scheme is designed to ensure that NSW sellers of eligible petroleum products are able to compete fairly with Queensland petroleum resellers. Subsidies range from 1.67cpl in the southern-most region (Zone 5), up to 8.35cpl near the NSW/Queensland border (Zone 1).

With the abolition of Federal fuel excise, there would be no justification to provide subsidies at the State level for different fuels. 10 per cent GST is the appropriate tax on all fuels.

### 3.4 Fuel excise is regressive and inequitable

Fuel excise places a disproportionately high burden on low income households. This is because the price elasticity of demand for fuel used in cars is low. In a large country with sometimes limited public transport, private vehicles are an essential mode of transport for many citizens. The regressive nature of fuel excises is inequitable as households least able to afford higher taxes allocate a greater share of their income to those taxes. This runs counter to government objectives of vertical equity, as instanced by Australia's current system of progressive income taxation.

In addition, to the extent that fuel excises can be envisaged as being in part charges for road use, they penalize regional motorists relative to urban motorists because the social costs of road use in regional areas (such as congestion and air pollution) are lower.

And under the current excise structure, tax rates on petrol (priced at around \$1.50cpl) are more than five times tax rates on other goods and services.

With the removal of fuel excise and 10 per cent GST applied to all fuels, the tax component on fuels would be reduced and hence the regressive and inequitable nature of the current fuel excise regime would also be reduced.

### 3.5 Tax on a tax

GST of 10 per cent is applied to the retail price of petrol. Since the retail price incorporates fuel excise of 38.143cpl, the GST is also applied to the fuel excise component – i.e. the 'tax on a tax' is equivalent to around 3.8cpl.

Whether in the current situation this 'tax on a tax' should be offset by reducing excise is a moot point. When the GST was introduced in July 2000, the so-called strike price of petrol for the purpose of calculating the GST impact was around 90cpl. To ensure prices remained unchanged, the Government announced that it would reduce excise by 8.156cpl less an amount of 1.5cpl that it argued would be returned over the long term through efficiency gains in refining. Consequently, a reduction of only 6.656 was implemented. By ensuring that prices remained largely unchanged, implicitly the 'tax

on a tax' was taken into account.<sup>7</sup>

To the extent that the tax on a tax is a feature of current fuel taxation arrangements, if fuel excise were abolished and 10 per cent GST applied to all fuels, the 'tax on a tax' would no longer be an issue.

### 3.6 Luxury car tax

A luxury car tax (LCT) of 33 per cent is levied on the GST-exclusive value of cars priced above \$57,123.<sup>8</sup> The LCT is projected to generate almost \$4 billion in revenue between 2007-08 and 2011-12.

Although the LCT was increased in the Commonwealth Budget of 2008 and effectively pre-empted a review of the automotive industry (Bracks Review) that was underway and also the Henry Tax Review that had also been announced, we consider that the existence of the LCT should still be revisited in this current review of Australia's Future Tax System.

In our view, the LCT is a remnant of the old tax system when luxury items such as jewellery, furs, watches, clocks, cameras, tape recorders, video recorders, televisions and radios were taxed at higher rates of sales tax. These items were described as luxuries or non-essential. The GST was intended to remove such anomalies in the tax system by applying uniform rates of tax across all goods and services.

Just as the differential tariff on PMVs and 4WDs creates distortions in the market (see Section 3.7, below), so does the LCT, particularly in terms of creating a disincentive to motorists wanting to purchase so-called luxury vehicles, which are often relatively safer and more environmentally-friendly.

If a decision is taken by the Government to retain the LCT, then the threshold should at least be adjusted upwards. The impact of the LCT has been compounded by the threshold failing to keep pace with movements in actual car prices.

#### **Recommendation**

AAA recommends the abolition of the Luxury Car Tax.

### 3.7 Tariffs

Tariffs on motor vehicles are a tax on imports. Tariffs are perhaps no longer an issue for this Tax Review, since they have been adequately dealt with by the recent Review of the Automotive Industry (Bracks). However, we raise the issue of tariffs simply for completeness.

AAA made a submission to the Bracks Review<sup>9</sup> recommending that the tariff reduction

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<sup>7</sup> The Government subsequently cut excise further, in March 2001, by 1.5cpl that it had previously argued would flow through in reduced prices over the long term, and it also abolished excise indexation at that time.

<sup>8</sup> There are some exemptions, relating to cars with fuel consumption less than 7 litres/100km.

<sup>9</sup> See [www.aaa.asn.au/publications](http://www.aaa.asn.au/publications)

program announced in 2002 should continue, with tariffs on passenger motor vehicles being reduced from 10 per cent to 5 per cent in 2010. More particularly, AAA argued for the tariff on all vehicles to be the same and for the removal of the disparity between the tariff on 4WD's and PMVs. The Government has since announced that the current policy will remain in place.

With tariffs declining to 5 per cent in 2010, AAA considers that tariffs need not be the subject of review in this Tax Inquiry.

### 3.8 NTC charges for heavy vehicles

As noted in Section 2, the National Transport Commission (NTC) has developed a system for charging heavy vehicles over 4.5 tonnes<sup>10</sup> for the use of the road network. The system is referred to as pay-as-you-go (PAYGO).

The PAYGO approach for charging trucks for the use of the road essentially comprises two components: a set of registration charges that vary according to vehicle type; and a component of fuel excise - a fuel-based road user charge (RUC) of 19.633cpl.<sup>11</sup> Together these components are designed to recover the average of total road spending costs over the past seven years.

Around 30 per cent of heavy vehicle costs are recovered by the State/Territory registration fees, with the balance paid through the RUC.

The charging approach has a number of shortcomings:

- it is based solely on cost recovery of road construction and maintenance rather than a preferred basis of marginal cost pricing to cover social costs of road use (discussed below);<sup>12</sup>
- it is seriously flawed because the determined RUC is simply a notional one and the revenue is not hypothecated to roads – this is a fundamental deficiency of the PAYGO approach used by the NTC to determine heavy vehicle charges;
- the cost base is rather limited, with cost recovery limited to past road expenditure rather than extending it to cover the cost of externalities such as crash, air and noise pollution costs – and this despite the fact that the Inter-governmental agreement setting out the NTC's role gives it the flexibility to address these externalities;
- the full cost recovery approach is based on actual expenditure and might not be the cost recovery needed for optimal road expenditure; and
- the charges are based on average distance and average mass for each vehicle class, creating equity problems within a class and possible efficiency losses as a result of distorted prices between classes. Other countries such as

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<sup>10</sup> The term heavy vehicles is used interchangeably with trucks in this Submission.

<sup>11</sup> Earlier this year, the Government introduced legislation to increase this charge from 19.6cpl to 21cpl, in accordance with a recommendation by NTC and agreement by COAG. However, the Opposition blocked this increase in the Senate. The legislation is likely to be reintroduced later this year.

<sup>12</sup> Marginal social cost measures the resource cost to society of the road user's decision to make the journey.

New Zealand have been charging on a mass-distance basis for many years and technology based solutions (involving GPS) are now in place in Switzerland, Germany and Austria.

Although PAYGO applies to trucks only, it is possible to determine the road user charge (RUC) that would apply to light vehicles if the same methodology were used. This is because the NTC has not only determined the costs attributable to trucks (24 per cent of the total), but also for light vehicles (76 per cent of the total).

The costs attributable to light vehicles (light commercial and passenger cars) in 2004-05 were \$5130 million. Total registration charges in the same period were estimated at \$2816 million. This leaves \$2314 million to be recovered by a fuel charge. Since fuel consumed in this period was 21500 million litres, a charge of only 10.8cpl would recover the attributable costs. This is considerably lower than the current tax of 38.1cpl.

This evidence confirms that cars are overcharged for the use of the road network compared to trucks. AAA considers that reform of fuel taxation is necessary to address the imbalance of car and truck charges.

### 3.9 How road user charges should be set

With the exception of road tolls in limited areas and, to some extent, heavy vehicle road use charges, road users do not currently pay directly for their use of roads. Motorists do pay fuel excise, but it bears no relation to actual costs imposed by vehicle use and it is simply an arbitrary tax.

Economic theory suggests that to achieve an efficient use of existing roads, road users should be charged the full marginal social cost they impose when using the road – the so-called short run marginal cost pricing rule.<sup>13</sup> Marginal social cost measures the resource cost to society of the road user's decision to make the journey. The cost of the original investment in the road is sunk and plays no role in the efficient pricing rule.

How to achieve cost recovery for investments in new roads is a separate issue from achieving an efficient use of roads. If economies of scale are important then there is no guarantee that revenues collected under efficient pricing will achieve full cost recovery – though if congestion is priced realistically on urban roads, more than full cost recovery may eventuate.

If charges in excess of marginal costs are levied on road users to, say, achieve full cost recovery, then this is no different – from a resource efficiency viewpoint – to a revenue raising tax. The key point is that road users should pay the appropriate cost of their use of roads. This will ensure that the value they derive from road use will at least cover the costs to society of their use.

The current fuel taxation arrangement has a revenue raising objective only. And the

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<sup>13</sup> Short run marginal costing is based on the road user paying the cost of an additional trip at the current level of infrastructure provision while long run marginal costing allows for the cost of infrastructure being optimally adjusted to the level of demand.

NTC's PAYGO approach is designed simply to recover average road expenditure over the past seven years.

### Recommendation

AAA recommends that fuel excise be abolished and replaced with a road user charge whereby road users pay for the full social costs of their road use.

Road users impose four broad social costs: road wear; environmental impact; congestion; and crashes. To achieve an efficient use of roads, road users should be charged for these costs according to the marginal cost their travel decision imposes.

Except for congestion – which is time and location dependent - charges on fuel should be used to cover these costs only if there are no other more direct and practical ways of charging for each component of social cost, or of reducing it.

An ideal road user charge would have two components: an access charge; and a user charge.

The access charge would be minimal and reflect the costs of vehicle registration for security and other reasons.

In theory, a user charge might have five components:

- a road wear charge to reflect pavement wear (damage) caused, which would vary by axle type and load;
- a charge to cover crash costs not covered by insurance premiums;
- an environmental charge to cover air and noise pollution;
- a carbon charge to address the effects of climate change; and
- a congestion charge levied *only* according to whether congestion exists at a particular time and place.

### Recommendation

AAA recommends that a road user charge have two components: an access charge and a user charge; the access charge would be minimal and reflect the costs of vehicle registration for security and other administrative reasons; and the user charge, in theory, should cover external costs of road use such as pavement wear (damage), crashes, air and noise pollution, greenhouse gases (climate change) and congestion.

#### 3.9.1 Costs (and charges) for pavement wear (road damage)

Road users 'use' infrastructure in that they wear and damage it. Pavement wear (road damage) depends on the technical characteristics of the road, the axle configuration of vehicles and load per axle as well as distance travelled. In principle, charges can be set to match these costs – charges based on axle group/axle mass and distance travelled.

Heavy vehicles cause considerable pavement wear. Ideally this should be charged for directly. The NTC has developed a charging approach for heavy vehicles but it

essentially is a budgetary one - full cost recovery - rather than the desired economic efficiency objective of marginal cost pricing of road use. There is no link between revenue collected from the charges and spending on roads.

By contrast, cars and light commercial vehicles cause negligible wear to most roads. An infrastructure use charging system operating through a charge on fuel used in road transport should reflect this by having only a very small charge for cars and light commercial vehicles and a much larger charge for heavy vehicles.

In research for AAA<sup>14</sup>, John Cox has noted that the only costs of road wear that are due to additional traffic are pavement maintenance and rehabilitation costs. He has identified from the NTC charging methodology template, that the specific costs are routine maintenance, periodic maintenance and road rehabilitation. The total cost of these items for 2004-05 was \$1,616 million (see Table 1).

**Table 1 Pavement wear (damage) marginal costs, 2004-05 (\$ million)**

Routine Maintenance	560
Periodic Maintenance of Sealed Roads	402
Road Rehabilitation	654
<b>Total</b>	<b>1,616</b>

**Source:** NTC (2005), 3<sup>rd</sup> Heavy Vehicle Road Pricing Determination Technical Report.

These costs need to be allocated to light vehicles and heavy vehicles in urban and rural areas. The methodology used to allocate these cost is set out in AAA's submission to the PC in May 2006.<sup>15</sup> The costs are reproduced in Table 2.

**Table 2 Pavement wear (damage) marginal costs by region and vehicle type, 2004-05 (\$ million)**

	Light Vehicles		Heavy Vehicles	
	Urban	Rural	Urban	Rural
Routine Maintenance	79.3	262.1	50.7	167.9
Periodic Maintenance	58.8	128.7	67.2	147.3
Road Rehabilitation	104.4	251.2	87.6	210.8
<b>Total</b>	<b>242.4</b>	<b>642.0</b>	<b>205.6</b>	<b>526.0</b>

The marginal costs in Table 2 can be expressed in terms of cents per kilometre (c/km) and cents per litre (cpl). Since data on distance travelled is readily available from the

<sup>14</sup> AAA, 'Road and Rail Freight Infrastructure Pricing', Appendix in submission to Road and Rail Freight Infrastructure Pricing, May 2006:

[http://www.aaa.asn.au/documents/submissions%2F2006%2FPC\\_Pricing\\_Final.pdf](http://www.aaa.asn.au/documents/submissions%2F2006%2FPC_Pricing_Final.pdf)

<sup>15</sup> See pp17-18 of the Appendix to the submission.

Australian Bureau of Statistics (ABS) classified by urban and rural areas and by vehicle type, it is relatively straightforward to calculate charges (to cover the marginal costs) on a c/km basis.

This is not the case for calculating charges on a cpl basis. While ABS provides data on fuel consumption by vehicle type, it is not available by urban and rural area. And although we should be content to represent the charges on a c/km basis – since costs vary by distance travelled – it is of interest to convert this cost to a cpl basis as a point of comparison with the actual fuel excise of 38.1cpl.

Importantly, it may be the case that the most effective way of collecting this charge is via a fuel based charge and so expressing it in terms of cpl is desirable. We will address this issue in more detail later.

In Table 3, we show the collective information of distance travelled by vehicle type for urban and rural areas, and the fuel consumed by vehicle type. By estimating fuel consumed in Table 3 on the basis of urban and rural areas, we can use this information to calculate charges on a cpl basis.

**Table 3 Distance travelled vehicle type and by region and fuel consumption by vehicle type, 2004**

	Urban Travel (billion veh- km)	Rural Travel (billion veh- km)	Total Travel (billion veh- km)	Fuel Consumption (mill. litres)
Light Vehicles	130.73	52.48	183.21	21,408
Heavy Vehicles	7.80	8.04	15.84	6,009
All Vehicles	138.53	60.52	199.05	27,417

**Source:** ABS (2005), Survey of Motor Vehicle Use, 2004, Cat No. 9209-0.

To determine the fuel consumed in urban and rural areas from Table 3, it is necessary to assume how much more fuel is consumed in urban areas because of stop-start driving than travelling at more or less constant speeds in regional areas. From a review of the literature, Cox has assumed that light and heavy vehicles will consume 20 per cent and 40 per cent more fuel respectively in urban areas. The heavier vehicles give a higher percentage increase in fuel consumption for driving in urban areas because of the greater energy needed for stopping and starting. This assumption provides the fuel used in urban and rural areas, as shown in Table 4.

**Table 4 Fuel Consumption by vehicle type and area, 2004 (million litres)**

	Urban	Rural	Total
Light Vehicles	16,042	5,366	21,408
Heavy Vehicles	3,461	2,548	6,009
All Vehicles	19,502	7,915	27,417

Using the information in Tables 2 and 4, we can derive the charges for light and heavy vehicle in urban and rural areas to cover the marginal costs of pavement wear (damage). These are shown in Table 5.

**Table 5 Pavement wear (damage) charges by region and vehicle type, 2004-05 (cpl)**

	Urban	Rural
Light Vehicles	1.51	11.96
Heavy Vehicles	5.94	20.64

It can be seen from the figures of Table 5 that there is quite a disparity in the charges designed to cover marginal costs when classified by vehicle type and area. These charges can be compared directly with the current fuel excise for light vehicles of 38.1cpl and the RUC of 19.6cpl which is set to partially recover past road expenditure.<sup>16</sup>

To conclude this Section, we point out that the analysis has been made using fuel consumption of petrol, diesel and LPG combined. Since fuel consumption varies by fuel type – and indeed individual vehicle models – it would be possible to further refine the charges identified in Table 5 by fuel type.

However, it is also worth pointing out that the costs of pavement wear should really be paid for on a c/km basis. If charges for pavement wear are collected on a cpl basis (as per Table 5), cars with better than average fuel consumption (expressed in litre/100km) would be subsidising those with worse fuel consumption.

Furthermore, charging vehicles simply on a cpl basis is inappropriate since pavement wear varies not only by distance travelled, but also by axle weight. Nonetheless, the figures of Table 5 are instructive from the point of view of comparing, at least in broad terms, the relativities between charges for heavy and light vehicles.

The basis for collecting charges for pavement wear (through fuel, distance based tracking technology or other means) will be the subject of later discussion.

### 3.9.2 Costs (and charges) for road crashes

In the previous Section, we identified charges to cover the cost of pavement wear. However, we stated earlier that to achieve an efficient use of roads, motorists should be charged for broader social costs such as road crashes, environmental harm and congestion according to the marginal cost their travel decision imposes.

Much of the potential costs of vehicle crashes are already internalised to the road user - through the purchase of safe vehicles and various insurance premiums. But there

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<sup>16</sup> Heavy vehicles also pay a registration charge to ensure full cost recovery of past expenditure, as opposed to meeting short-run marginal costs as we have calculated here. The charges vary by vehicle class. Of course, light vehicles also pay registration charges, and this issue is addressed later in this Submission.

may be other external costs that need to be charged back to road users to ensure that they face the full social costs of their road use.

According to the BTE,<sup>17</sup> the cost of road crashes in Australia in 1996 was \$15 billion. A more recent estimate is \$17 billion in 2006.<sup>18</sup> At issue is how much of these costs are not internalised through third party and private property damage insurance and need to be charged for through some other mechanism. There is no consensus in the literature on this. One position is that all crash costs should be regarded as externalities, while others argue that all relevant costs are already internalised.

Given this lack of consensus, and the fact that a price signal in the form of a charge to reflect the externality is unlikely to influence driver behaviour, we have omitted any estimate of road crash costs in total charges. Furthermore, since risk profiles will vary markedly from driver to driver, it would be inappropriate to charge all drivers for the external costs of crashes.

The Productivity Commission<sup>19</sup> had something to say on this point in its recent report on road and rail freight infrastructure pricing:

*“...making selective adjustments to [road freight] infrastructure pricing for the average impact of road externalities is unlikely to be the most efficient way of dealing with [freight transport] externalities. Such approaches do not address the externalities directly, nor promote optimal levels of an externality, nor consider opportunities for other, lower-cost, abatement initiatives.”*

Our preference therefore, is to deal with the external costs of road crashes – assuming they exist - through specific measures directed at creating safer drivers, safer cars and safer roads.

### **Recommendation**

AAA recommends that in practice, it would be more efficient to address crash costs through direct measures (such as improved vehicle safety, better road infrastructure, pay as you drive insurance directed at creating safer drivers) rather than via a user charge.

### 3.9.3 Costs (and charges) for air pollution and noise pollution

In AAA (2006), Cox estimated the external costs of air pollution and noise pollution and identified a set of fuel based charges for light and heavy vehicles that would account for these costs.

Having calculated the external costs of air and noise pollution, the question remains as to if, and how, road users should be directly charged for these costs.

There is a number of options to address this issue. Charges could be levied on a distance basis, either through tracking technology or fuel excise. On the other hand, a more efficient means of dealing with the external costs might be to introduce tighter

<sup>17</sup> Bureau of Transport Economics, Road Crash Costs in Australia, Report 102, 2000

<sup>18</sup> Connelly LB and Supangan R, 'The economic cost of road crashes', Accident Analysis & Prevention, Volume 38, Issue 6, Nov 2006

<sup>19</sup> Productivity Commission, Road and Rail Freight Infrastructure Pricing, Report 41, 2006

emission and noise standards, although this would impose costs on those vehicles operating in rural areas where emissions are not an issue.

A further option, which has been advanced by Cox, is to levy differential registration charges, where charges varied by a vehicle's environmental performance. Although such a scheme will not address air pollution in line with actual vehicle use, the scheme could provide incentives to purchase cars with higher environmental performance. This is certainly an option that should be explored, however, as a general rule, variable costs (costs that vary by vehicle use and location) are best covered by variable charges, rather than fixed registration charges.

It is also clear that since costs vary significantly between urban and rural areas, a fixed charge would not help to capture the differences in costs between regions. If the charges were to be collected through fuel excise, there would need to be differences in fuel excise rates between urban and rural areas. While this could be done in practice, there will always be problems associated with defining boundaries. Between 2000 and 2006, a differential fuel excise rebate existed for heavy vehicles which varied according to truck size and whether the vehicle was used in a metropolitan area or not.<sup>20</sup> The system created difficulties in boundary definition (and securing air quality benefits in metropolitan areas) and was abolished from July 2006.

Irrespective of the charging mechanism, it should also be noted that cars are getting 'cleaner' with tighter emission and fuel quality standards continually being introduced along with new technology and so costs – which are already low - will decline further over time. Charges can therefore be very quickly out of date - and hence higher than justified.

Carbon monoxide is one of a number of air pollutants from motor vehicles. As an example of improvements that have been taking place, and expected to continue, Figure 1 shows the decline of carbon monoxide from vehicles over the past decade and through to 2050. It can be seen from the chart that CO emissions in 2015 are expected to be around one-third less than they were in 2000.

BTRE estimates that motor vehicle emissions of nitrogen oxides, carbon monoxide and sulphur dioxide will decline significantly by 2020. Its projections take account of changes to new vehicle emission standards and fuel standards and a projected 46 per cent increase in total fleet vehicles kilometres travelled.<sup>21</sup>

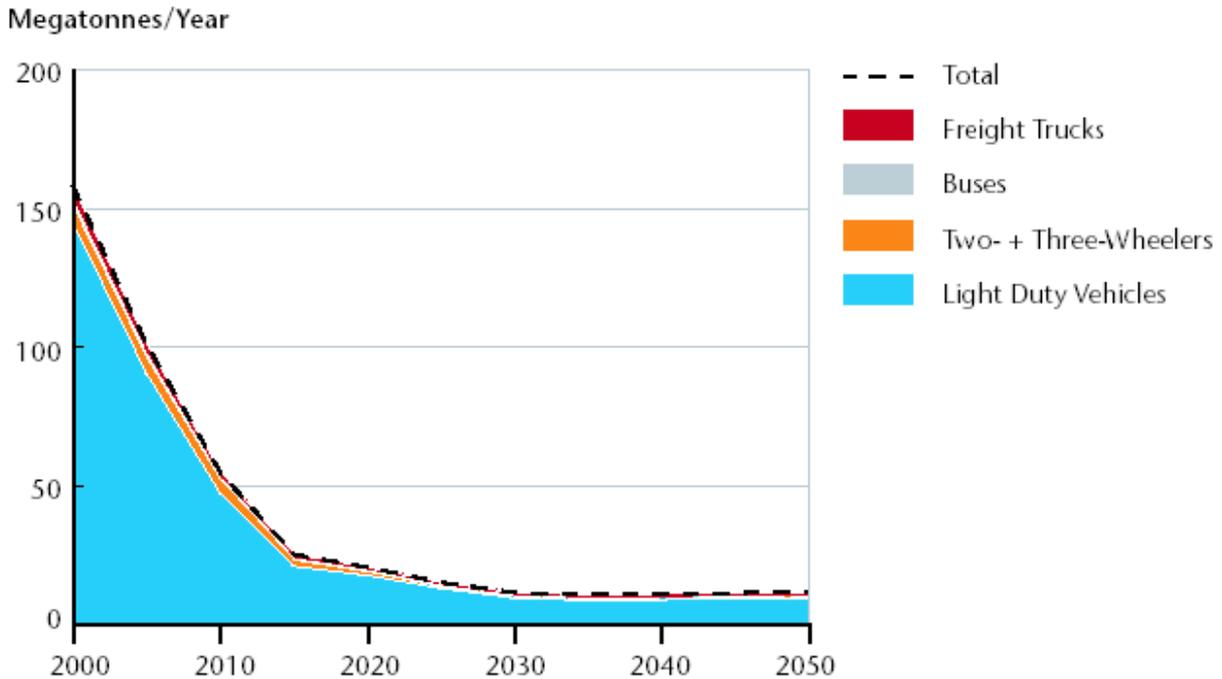
Noise pollution is also very much location based and so an across the board charge for all vehicles to address the costs would be inappropriate. In our view, noise pollution is best addressed more directly in those locations where noise is a problem, for example, by erecting noise barriers but also by introducing tighter vehicle standards relating to noise.

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<sup>20</sup> The rebate applied for business related on-road use of diesel and like fuels (as well as alternative fuels) under the Diesel and Alternative Fuels Grant Scheme (DAFGS) between 2000 and 2003 and the Energy Grants (Credits) Scheme between 2003 and 2006 for heavy vehicles between 4.5 and 20 tonnes.

<sup>21</sup> Bureau of Transport and Regional Economics, Urban pollutant emissions from motor vehicles: Australian trends to 2020, BTRE, Canberra, June 2003.

**Figure 1 Carbon monoxide emissions**



**Source:** World Business Council for Sustainable Development

**Recommendation**

AAA recommends that in practice, it would be more efficient to address air and noise pollution costs through direct measures such as improved vehicle emission standards and fuel quality, rather than via a user charge.

**3.9.4 Costs (and charges) for greenhouse emissions**

The Federal Government is committed to the introduction of emissions trading based on a cap and trade scheme. The cap is the limit on greenhouse emissions imposed by the scheme. After setting the cap, the Government then issues permits equal to the cap.

The mechanics of the scheme have been identified in the Government’s recently released Green Paper: Carbon Pollution Reduction Scheme (CPRS) and involve significant emitters of greenhouses gases – such as refineries – to acquire a ‘carbon pollution permit’.

As stated in the Green Paper, the logical starting point for imposing scheme obligations is at the point where emissions are physically produced. In the case of road transport, it is the road user. However, there are millions of cars on the road and, as the Green Paper notes, in sectors such as road transport where there are many small emitters, a direct approach to coverage would impose excessive compliance costs. For this reason, the Government has proposed that transport emissions would be covered from scheme commencement, with scheme obligations applied to

upstream fuel suppliers. This is consistent with the AAA position that was developed last year and elaborated in our Climate Change Statement 'On the Road to Greener Motoring.'<sup>22</sup>

In accepting the need for transport to be included in an emission trading scheme, AAA identified the likely costs that would flow through to motorists at the pump. In Table 6, we identify a feasible range of permit prices that could emerge and the associated fuel costs.

**Table 6: Impact of emissions trading on transport fuel costs for permit prices of \$5, \$25 and \$50 per tonne CO<sub>2</sub>-e<sup>23</sup>**

Fuel Type	Emission Factor T CO <sub>2</sub> -e/kL	Petrol Price Increase (cents per litre) for three permit prices		
		Permit Price (per tonne CO <sub>2</sub> -e)		
		\$5	\$25	\$50
Petrol	2.4	1.2	6.0	12.0
Diesel	2.7	1.4	6.8	13.5
LPG	1.6	0.8	4.0	8.0
Biofuels	2.1	1.1	5.3	10.5

In the Green Paper, the Government has proposed to cut fuel taxes for the first three years of the CPRS on a cent for cent basis to offset the price impact on fuel.

In AAA's response to the Green Paper<sup>24</sup>, we supported the Government's proposal to offset the price impact, noting that it was reasonable to argue that there is already a component within fuel excise to cover the costs of carbon, particularly since only around 10cpl from the 38cpl collected is being allocated to road construction and maintenance. In other words, light vehicles are already bearing a charge that serves to internalise the carbon externality.

The proposed CPRS will generate a large source of revenue through the auction of permits. Any loss of revenue from abolishing fuel excise will most likely be offset by this new revenue which could be directed towards improving land transport infrastructure, including public transport and to reducing congestion and greenhouse gas emissions.

### Recommendation

AAA recommends that a carbon price be included in a road user charge to address climate change; however, the Government's proposed response to offset the price impact under emissions trading is the right policy response in the current circumstances with a fuel tax in place and should be seen as a first step towards reforming fuel tax.

<sup>22</sup> See [www.aaa.asn.au/publications](http://www.aaa.asn.au/publications)

<sup>23</sup> Emission factors taken from AGO Factors and Methods Workbook, Department of the Environment and Heritage, December 2006.

<sup>24</sup> AAA Response to Green Paper: Carbon Pollution Reduction Scheme, September 2008, can be downloaded from [www.aaa.asn.au/publications](http://www.aaa.asn.au/publications)

### 3.9.5 Costs (and charges) for congestion

In previous research commissioned and published by AAA<sup>25</sup>, Cox did not calculate a charge for congestion. However, since conducting the earlier research involving estimates of the costs of pavement wear, road crashes, air and noise pollution (discussed above), there is now a significant amount of work being undertaken by Commonwealth and State governments on the problems of urban congestion and the effects of road user pricing in reducing those congestion costs.

At a meeting of the Council of Australian Governments (COAG) in February 2006, COAG committed to:

*“reduce current and projected urban congestion, within current jurisdictional responsibilities by commissioning a Commonwealth-State review, in cooperation with local government, into the main causes, trends, impacts and options for managing the impact of urban transport congestion in Australia’s major cities.....”*<sup>26</sup>

A number of studies on congestion were initiated at this meeting and have been managed by a COAG Competition and Regulation Working Group. These studies were reviewed during a further COAG meeting on 13 April 2007 and the communiqué from this meeting stated:

*“On transport, COAG has agreed to a three-phased reform program to provide better price signals for transport freight infrastructure providers and users to enable Australia to meet more efficiently the forecast growth in the national freight task, in parallel with implementing road transport productivity enhancing reforms. COAG agreed that each jurisdiction implement its own specific responses to urban congestion, drawing on best-practice principles, and noted that AusLink will continue to consider contributions to future urban projects on AusLink corridors”.*

Since that time, a new Federal Government – through the Australian Transport Council (ATC) - has decided to develop a National Transport Policy where:

*“the overall aim will be to provide better signals to guide both the supply of and demand for infrastructure services.....”*<sup>27</sup>

As part of this policy, a number of Working Groups have been established, including one on Urban Congestion (chaired by the Victorian Transport Minister). The work stream will target its work to, inter alia, “a comprehensive study to improve understanding of the impacts and practicality of the range of pricing options available to better manage rising congestion pressures.”

A further Working Group, Economic Framework for an Efficient Transportation Marketplace (EFETM) is chaired by the NSW Transport Minister. It has a work program that will encompass the current road pricing focussed work under the COAG Road Reform Plan – which continues to develop the research building blocks to enable COAG to further consider the potential merits of a move to mass, distance and

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<sup>25</sup> See Appendices to AAA submissions to the Fuel Tax Inquiry (2001) and the Productivity Commission (2006) which can be downloaded from [www.aaa.asn.au/publications](http://www.aaa.asn.au/publications)

<sup>26</sup> Council of Australian Governments Communiqué, 10 February, 2006.

<sup>27</sup> Australian Transport Council (ATC) Communiqué, 2 May 2008.

location based charges for heavy vehicles. AAA is a member of the Ministerial Taskforce that reports to this Working Group.

On the question of actual charges for congestion, it may be possible to calculate marginal congestion charges for road use in capital city and rural areas for light and heavy vehicles and to gain some understanding of the relative magnitude of these costs compared to costs for pavement wear, crash costs and air and noise pollution. However, the most recent report on congestion costs from BTRE<sup>28</sup>, made it clear that its estimates of avoidable costs of \$9.4 billion in 2005 did not allow accurate estimates of congestion costs in specific cities to be calculated. The BTRE approach to estimating congestion costs is an aggregate modelling one i.e., it does not directly use detailed network modelling. As stated in the BTRE Report, network models generally attempt to simulate the traffic flows on a city's road system in considerable detail; whereas the aggregate method – on which the recent BTRE estimates of congestion were based - aims to provide broad estimates of the scale of a city's congestion situation using aggregate indicators of a city's overall average traffic conditions.

According to the BTRE, 'the main disadvantage relates to the approximate nature of such aggregate costings - with congestion being such a non-linear, inhomogeneous and stochastic process, highly accurate, location-specific assessments of its impacts can typically only be accomplished using detailed network models.'<sup>29</sup>

Since congestion costs are time and location specific, we have not advanced any estimate of marginal congestion costs in individual Australian cities as more detailed network analysis is required. Nonetheless, congestion charging should at least be embraced in a road user charging model, although it should only be introduced after consultation with stakeholders – including, in particular motoring Clubs - and importantly be targeted at places and times where congestion exists.

There is a wide range of approaches to tackling congestion that go beyond charging (either network based, or cordon charging) and include road capacity enhancement, active traffic management, land use planning, public transport expansion, parking policy measures, information and communication technologies. AAA considers, therefore, that State (and in some cases city) jurisdictions are best placed to identify the most efficient way of tackling congestion

### **Recommendation**

AAA recommends that in practice, congestion charging should be a matter for State governments and only introduced after consultation with stakeholders; where it is introduced, charges should only apply where congestion exists and be time and location specific.

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<sup>28</sup> BTRE, 'Estimating urban traffic and congestion costs trends for Australian cities', Working Paper 71, 2007.

<sup>29</sup> BTRE, *op.cit.*, Foreword.

## 4 A practical system

In the foregoing discussion, we have argued that fuel tax reform should involve the abolition of fuel excise and its replacement with a road user charge. In theory at least, the charges should cover the external costs of pavement wear, crashes, air and noise pollution, greenhouse gas emissions and congestion.

In earlier Sections of this Submission, we also argued that it was inappropriate to charge for crash costs, air pollution and noise pollution. In practical terms therefore, the ideal charge would be one addressing pavement wear as well as greenhouse emissions in the form of a carbon price. Congestion should be addressed separately.

Although we have put forward some ideas on actual charges that might apply to cover external costs, further debate and analysis amongst stakeholders of the actual charges that might apply and the collection mechanism to be used needs to be the subject of further discussion and analysis.

Since heavy vehicles currently only pay for pavement wear, a transitional step might be to introduce charges for light vehicles that cover this component only, although charges for greenhouse emissions could also be implemented and replace the carbon offset proposal, assuming that it is in place at the time fuel tax is reformed.

While fuel could be used as a means of charging for pavement wear for light vehicles, the same is not true for heavy vehicles, because pavement wear varies not only by distance travelled but also axle load.

Rather than using fuel as a basis for charging, the technology is currently available – and used on existing toll roads in Sydney, Melbourne and Brisbane – to track vehicles and charge them use of the road network. The application could be extended to other arterial roads in the cities. Subject to stakeholder consultation, it could also be extended to vary charges depending on whether congestion on parts of the network existed or not, but such charges should be the responsibility of the States.

Irrespective of the approach adopted, it is essential that some form of cost/benefit analysis is done of the options so that reform will actually lead to a more efficient outcome.

### **Recommendation**

AAA recommends that road user charges should be designed to minimise complexity and transaction costs, while also funding infrastructure and reducing external costs.

## 5 State registration charges

Apart from reforming fuel excise, we believe that changes to the current system of registration need to be reformed as well, particularly since registration charges form one component of the current charging system for heavy vehicles.

Motor vehicle registration charges vary by jurisdiction, not only in the amounts that are charged, but also the basis on which they are levied and in how they are defined. The basis for levying the charge includes weight, number of cylinders and engine capacity.

In addition to charges based on weight, Western Australia charge an administration fee of \$12.15 and a so-called prescribed flat fee of \$13.20.

Given that Western Australia charges an administration fee, it is not clear what the purpose is of charging a fee based on weight for light vehicles, since the weight of such vehicles will have negligible impact on pavement wear compared to heavy vehicles. One can only assume that registration charges are used to raise revenue.

In Tasmania, registration fees include a fixed fee of \$72.85 (with concessions for pensioners) that includes a fire levy (\$14) and in addition, a road safety levy (\$20) and a motor tax that varies according to the number of cylinders.

In NSW, registration fees are a combination of an administration fee and a tax. Most registrations include a component of Motor Vehicle Tax. Revenue from the tax helps fund road construction and maintenance. Registration fees for light vehicles are based on the unladen weight of the vehicle. The more it weighs, the more it costs.

In Queensland, registration fees include a traffic improvement fee that is used to upgrade roads and intersections.

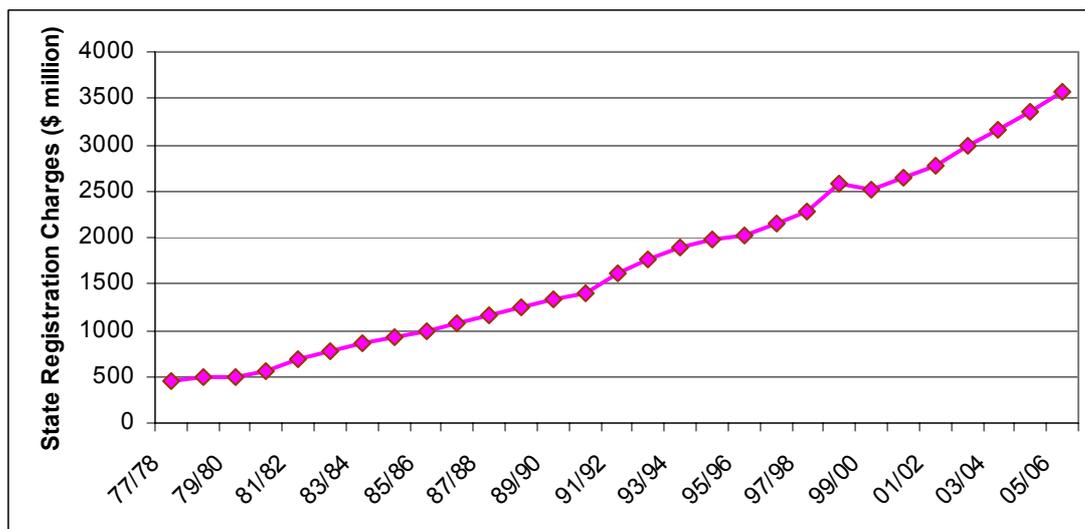
South Australia charges an Emergency Services Levy on all fixed and mobile property to fund the provision of that State's emergency services. A levy of \$24 per annum is collected through the annual registration of private motor vehicles.

In the ACT, registration charges vary according to weight and a road rescue fee and a road safety contribution are levied as well.

In the Northern Territory, registration charges are based on engine size and number of cylinders.

Interestingly, registration charges – known as vehicle licence fees in WA – are not subject to GST in all States/Territories, but GST is applied to compulsory third party insurance which is paid at the time of registration.

**Figure 2 Trend in State Registration Charges**



Source: BTRE (2005)

Up-to-date total (light and heavy vehicle) State registration revenue is not readily available, but Cox in AAA (2006) estimated the total for 2004-05 using published 2002/03 figures for all States from BTRE<sup>30</sup>. The estimate is \$3,364 million and yearly totals and the trend for the past 30 years is shown in Figure 2 (above).

Although there is no separation of light and heavy vehicle registration figures in the BTRE publication, the NTC extrapolated heavy vehicle registration charges to 2004/05 and estimated it to be \$548 million in that year. If these heavy vehicle charges are subtracted from the total (\$3,364) then this leaves registration charges of \$2,816 million for light vehicles. As there were 12,594,508 light vehicles in 2004, as given in ABS (2005)<sup>31</sup>, this gives an average registration figure of \$223 per light vehicle.

It is clear from Figure 2, that registration charges are clearly used to raise revenue and, since they are a fixed charge, have limited impact on a vehicle's use. A more efficient charging system is one that relates to a vehicle's use. While there is a need to register vehicles for monitoring and compliance purposes, we consider that there is only a need for a minimal charge for registration to cover the costs of administration.

**Recommendation**

AAA recommends nationally consistent and minimal registration charges for passenger motor vehicles.

**6 Stamp duty**

Stamp duty is a remnant of the old tax system. When the GST was introduced in 2000 a range of taxes were abolished and AAA would have expected stamp duty to have also been abolished. Stamp duty on some transactions in various States has also been abolished since then. Unfortunately, from a motoring perspective, stamp duty on the sale of motor vehicles remains as a means of raising revenue in all States.

Stamp duty (referred to as vehicle registration duty in Queensland) varies from State to State. In Queensland, stamp duty ranges from 2 per cent to 4 per cent, with the lowest rate applicable to hybrid vehicles. Western Australia has a top rate of 6.5 per cent for cars over \$45,000. Since it is levied on the GST inclusive price of a vehicle, it represents a 'tax on a tax'. The ACT has recently introduced stamp duty that varies according to the environmental performance of the vehicle.<sup>32</sup>

Stamp duty obviously adds to the cost of purchasing a new car. And it continues to add to the cost when a vehicle is sold and re-registered to a new owner. It is simply a tax on transactions and has no policy outcome.

With the removal of stamp duty, cars will become more affordable and lead to a renewal of the Australian car fleet which is relatively old. This will have environmental benefits as newer cars in general have lower fuel consumption.

**Recommendation**

AAA recommends the removal of stamp duty on vehicle registration.

<sup>30</sup> BTRE, Public Road Related Expenditure and Revenue in Australia, 2005, Information Sheet 24.

<sup>31</sup> ABS Survey of Motor Vehicle Use, 2004, Cat No. 9208-O.

<sup>32</sup> This is based on the Federal Government's Green Vehicle Guide (GVG).

## 7 Conclusion

The inefficiencies in the current system are well known. They have been analysed and exposed in numerous official inquiries and gatherings of experts. Until recently, Commonwealth and State Governments have shown little interest in reform. No doubt the reluctance of Treasuries to relinquish a source of revenue has played a part. But continuing Budget surpluses and the fact that land transport stands out as a remaining infrastructure utility that is in need of reform – perhaps due in part by an increase in attention being given to congestion in our major cities – reform is being proposed at last. The NTC has signalled a change in direction with its Strategic Planning Framework that is to be considered by Infrastructure Australia and the current Review of Australia’s Taxation System is an exciting development.

AAA hopes that this Taxation Review will lead to the removal of fuel excise and its replacement with a road user charge. The reform we are proposing also involves a fundamental shift away from charges of a fixed nature (such as registration) towards a charging regime related to a vehicle’s use. We believe that this reform will undoubtedly generate significant economic pay-offs, create improved transparency, ensure more efficient decision making by motorists and result in motorists being better off in terms of the overall cost of motoring.

Removal of stamp duty and the luxury car tax will improve the administrative simplicity of the taxation system which is what was intended when the GST was introduced.

Significant Government budget surpluses generated over the past few years will ease any burden from reduced revenue emanating from these changes. Additional revenue will be generated through the auction of permits under the Government’s proposed emissions trading scheme and this should be directed at reducing some of the external costs and increasing investment in land transport infrastructure.

Reform of the taxation system will offer an opportunity for State governments to tackle congestion which is costing the nation several billions of dollars per annum.

Existing funding arrangements whereby the Commonwealth collects fuel excise revenue and uses only a small proportion of the revenue to fund roads, and State Governments collect registration charges will be affected by the changes we are proposing. The issue of revenue allocation will need to be resolved as well as funding responsibilities, given that they vary between three levels of Government. For example, roads within the AusLink network are now the shared responsibility of the Commonwealth and the States.

The recent establishment of Infrastructure Australia and creation of the Building Australia Fund also add a new complexity which would need to be considered.<sup>33</sup>

Just how existing toll roads might be incorporated in the model we are proposing needs further consideration. However, AAA would not accept a reformed charging regime where motorists paid twice – once via a road user charge and again via a toll.

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<sup>33</sup> According to the Government, Infrastructure Australia (IA) has been established to develop a strategic blueprint to unlock infrastructure bottlenecks and modernise the nation’s key infrastructure assets; the Building Australia Fund (BAF) will finance critical national transport and communications infrastructure which cannot be delivered by the private sector or the States.

This has also been our view with congestion charging, which is properly the responsibility of the States.

Many issues, therefore, need to be resolved, including a need to ensure that motorists are not worse off from any reform proposal, the actual charges that may apply and the collection mechanism. Hence reform along the lines we are proposing will need Federal-State consideration – perhaps through COAG – given the mix of accountability.

Finally, because roads provide national economic benefits not all of which are captured by road users, there is a strong case for road agencies to receive funds not only from road user charges, but *also* from consolidated revenue.

**Recommendation**

AAA recommends that any reform of fuel tax and other motoring taxes, charges and fees should ensure that there is no net increase in the overall cost of motoring.