

# **Comments on: Vehicle Fuel Efficiency Public Discussion Paper**

## **Potential measures to encourage the uptake of more fuel efficient, low carbon emission vehicles**

Submitted on Thursday 6 November 2008

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## ***Introduction***

In response to the Australian Transport Council (ATC) and Environment Protection and Heritage Council (EPHC) Vehicle Fuel Efficiency Working Group request for views on programs and incentives to encourage the uptake of more fuel efficient and low emission passenger and freight vehicles, and to provide advice on opportunities for reforms to regulations, standards, codes and labelling requirements to improve vehicle fuel efficiency and move Australia towards international best practice, the Australasian Fleet Managers Association (AfMA) would like to share its observations with the working group on ways of achieving this goal.

AfMA is a not for profit organisation and has over 550 members across Australia and New Zealand where our members are responsible for the management of approximately 800,000 vehicles.

The fleet industry plays a significant role at both a State and Federal level in a number of ways. Fleet sales account for in excess of 50% of all yearly new vehicle registrations. The purchasing decisions of fleet managers have a major impact on economic and social structure.

In addition, transport contributes some fourteen per cent of Australia's greenhouse gas emissions and is one, if not the only, segment that is expected to increase in the near future.

## ***Executive summary***

While the Vehicle Fuel Efficiency Working Group has set the parameters for the paper it has indicated a desire to consider measures to address the problem of increased CO<sub>2</sub> emissions from transport that would deliver 'world's best practice' in vehicle fuel efficiency.

In taking this opportunity to respond, and due to the interrelated and interconnected nature of the subject, AfMA will touch on some issues that may be deemed to be outside the declared scope of this discussion paper. Nevertheless many do impact and, in some cases, drive the purchasing decision and dictate operational approaches in fleet purchases and operations. To view this issue in isolation, we would suggest, would not achieve the best outcome.

Fleets are an integral part of an organisation's business model and have a defined cost. A fleet manager must balance the relationship between the capital cost of the vehicle, whole-of-life operational costs, Stamp Duty and Fringe Benefit Tax (FBT). The largest disincentives for change are those that add to the cost for the organisation.

A secondary function of fleet is that it is the major source of vehicles into the used, second hand vehicle market. Purchasing decisions made by fleet today will impact the transport sector emissions output and vehicle safety for up to a decade after the initial acquisition.

Major obstacles to efficient fleet management are to be found in the conflicting objectives present in Federal and State Government environmental, road safety and

taxation policies which are often at odds with current social attitudes and good corporate behaviour. This has led to higher prices than the pure business case can adequately support.

For example, initiatives to reduce emissions and road trauma are subject to several taxation systems that actively punish businesses financially for adopting new technology and being socially responsible.

The current FBT system actively provides financial disincentives for the inclusion of environmental initiatives into fleet operations. For example, should a fleet manager purchase an LPG or diesel engine it is likely to cost upwards of \$2,000 over the petrol variant.

This additional \$2,000 is then subject to stamp duty and FBT (if applicable). Should an initiative to reduce emissions also be undertaken with an outcome of reducing kilometres travelled per year from above 25,000 kilometres to between 15,001 and 25,000 the additional costs to the organisation for being socially responsible is substantial.

For a fleet of 100 vehicles and a three year ownership the additional costs become:

$\$2,000 \times 3\% \text{ stamp duty} \times 100 \text{ vehicles} = \$6,000$  plus  
 $\$2,000 \times 20\% \text{ FBT} \times 2.0647 \times 46.5\% \times 100 \text{ vehicles} \times 3 \text{ years} = \$115,209$   
Sub total (additional cost for adding \$2,000 of equipment) = \$121,200

When the cost of reducing distance travelled is added the cost becomes:

Vehicle cost \$35,000 x 9% (the difference between 11% and 20%) \$3,150 x 100 vehicles x 3 years = \$945,000 x 2.0647 x 46.5% = \$907,280.

A three year ownership for 100 vehicles under the above scenario would cost an organisation an additional \$1,028,480 (\$121,200 + \$907,280).

Vehicles with reduced emissions features should be more financially attractive to fleets not less. There is an urgent need to reconcile the legislative conflicts that produce disincentives. This, in conjunction with the introduction of incentives, will allow fleets to be at the forefront of a robust movement to substantially increase the number and range of more environmentally friendly vehicles in the fleet.

Programs to encourage the uptake of more fuel efficient, low carbon emission vehicles should include due consideration of, and reference to, vehicle safety implications and standards. It is important that such programs do not compromise vehicle safety, restrict the inclusion of vehicle safety features or inhibit the enhancement of vehicle safety standards.

For example, in current model Ford Falcon passenger and light commercial vehicles, two significant safety features - vehicle traction control and Dynamic Stability Control – are not available when Ford's optional E-Gas LPG engine is fitted. It is hoped that such issues might be addressed as Australia adopts United Nations

Economic Commission for Europe vehicle standards as the basis for emissions and safety standards.

Consideration might be given to shifting the form of measurement, determination and publication of vehicle emissions from CO<sub>2</sub> (carbon dioxide) to CO<sub>2</sub>-e (carbon dioxide equivalent), in conformance with National Greenhouse and Energy Reporting Guidelines.

Also see our responses to the working party's particular questions below.

## Response to specific questions by category

### Category 1: Measures to Increase the Supply of Low Emission Vehicles.

#### 1.1 CO<sub>2</sub> emission standards for new light vehicles

##### **Proposal**

Establish revised sales weighted average CO<sub>2</sub> emission standards for new light vehicles, which aim to significantly reduce the average level of CO<sub>2</sub> emissions from the Australian light vehicle fleet. This has the effect of improving the average fuel efficiency for new vehicles.

##### **Conclusions**

Current trends suggest that it is unlikely market forces alone will deliver the magnitude of vehicle CO<sub>2</sub> emission improvements which might be expected to be required by the policy directions being adopted in a number of overseas countries. In considering such scenarios, many countries are utilising or planning to introduce/strengthen CO<sub>2</sub> emission standards which the vehicle industry is required to meet. Increasingly, countries are turning to mandatory targets, given limited evident success with voluntary agreements.

##### **Question:**

Do you consider there is a case for tightened CO<sub>2</sub> standards for the light vehicle fleet in Australia?

##### **A/MA's response:**

Yes, there is a strong case for aligning emission standards with international best practice for emissions.

Europe is planning to move to more stringent emissions standards. *Euro 5* and *Euro 6* emission standards for light petrol and all diesel vehicles will be implemented from late 2009 and late 2011 respectively. The primary focus of these new standards is on reducing oxides of nitrogen (NO<sub>x</sub>) from all vehicles and particulate matter (PM) emissions from light diesel vehicles.

The EU is also proposing a corporate average CO<sub>2</sub> target of 130g/km by 2012. However, the Australian fleet is at a much higher base level of CO<sub>2</sub>g/km than the European fleet so any alignment of CO<sub>2</sub> standards should be in terms of comparable percentage reduction rather than adoption of the same levels.

A number of government fleets in Australia have already set minimum vehicle CO<sub>2</sub> emission standards, some based on the Department of Infrastructure, Transport, Regional Development and Local Government Green Vehicle Guide (GVG).

**Question:**

If you consider tightened standards are required, should they be voluntary or mandatory?

**AfMA's response:**

We believe that standards should be mandatory. Local and international experience show that whilst voluntary standards may result in reductions, these typically occur over a much longer time period. Timely results will require mandated action.

**Question:**

Do you have a view about the design of any system - for example do you agree that the standard should be a sales weighted average? Do you agree with the EC proposal to link the standard to vehicle weight, or should it be based on different parameters?

**AfMA's response:**

We suggest that corporate sales weighted average CO<sub>2</sub> g/km be the method used.

**Question:**

Do you consider that CO<sub>2</sub> standards can effectively operate independently of other measures, or are other measures critical to their success?

**AfMA's response:**

Yes if standards are mandatory and linked to emissions per kilometre travelled, rather than only the volume of fuel consumed, they can effectively operate independently.

**Question:**

Do you consider that market pressures, such as rising fuel prices, will be sufficient to deliver significant vehicle CO<sub>2</sub> emission improvements for the light vehicle fleet, without the need for CO<sub>2</sub> standards?

**AfMA's response:**

Leaving it to market forces we see as seeking success by accident rather than by design. The outcome being sought requires leadership and commitment from government and should include specific targets, performance indicators and mandatory requirements.

Voluntary agreements appear to deliver limited, if any, success. A case in point is that of manufacturers in the United States turning to the courts to prevent more stringent emissions standards being introduced i.e. Californian proposed emissions standards.

It should also be noted that not all "market pressures" will deliver CO<sub>2</sub> emission reduction. For example, consumers might be reluctant to take up some lower-emission vehicles because they come at a premium cost, and one that is not readily offset by fuel savings.

## **Category 2: Measures to Increase Demand for Low Emission Vehicles**

### **2.1 Restructure State and Territory registration and stamp duty charges for light vehicles**

#### **Proposal**

Realign existing State and Territory stamp duty and/or registration charges for light motor vehicles on a sliding scale based on greenhouse (CO<sub>2</sub>) emissions.

#### **Summary**

Although there is a lack of direct empirical evidence, modelling and outcomes from analogous fiscal incentive schemes (such as the UK company car tax) indicates that the measure has the potential to be an effective means of improving vehicle fuel efficiency.

Should it be pursued, design and implementation may need to vary between jurisdictions due to revenue implications and the character of the existing legislative and administrative frameworks. A large variation in system design is found among those in operation internationally. For reasons of simplicity and data availability, the focus of any scheme (at least initially) could be on new vehicles registered after the commencement of any scheme.

An assumption of revenue neutrality in system design would appear to be an appropriate starting point for this work. It would potentially simplify the decision making processes of governments. Any significant variation in the net revenue of governments, either upward or downward, raises broader issues that governments may need to consider.

In considering likely costs, it would appear that costs to consumers and/or industry would be limited.

#### **Question:**

Would a stamp duty differential charging scheme be an effective means of encouraging consumers to purchase more fuel efficient vehicles?

#### **AfMA's response:**

We would see such a system as beneficial if it were an incentive that reduced the cost of low fuel consumption vehicles. We would not like to see a punitive approach (i.e. a reduced cost by default such as increasing the tax on other vehicle groups).

Also care should be taken to ensure that incentives/disincentives are applied judiciously. For example, the number of cylinders and engine size are not necessarily accurate measures of environmental performance. Fuel consumption and emissions is also a product of other factors such as the increased use of light weight materials and improved engine management technology. Differential fee structures should focus on emissions data.

**Question:**

Would a registration differential charging scheme be an effective means of encouraging consumers to purchase more fuel efficient vehicles?

**A/MA's response:**

Fleet managers use a 'fit for purpose evaluation' process and a 'whole of life costing' equation when choosing vehicles. Any make/model that reduces the whole of life cost has an advantage for the fleet manager as long as it meets the transport service requirements.

Again, differential charging to achieve an environmental outcome should focus on vehicle emissions.

**Question:**

Of the range of basic system models outlined above, which would be the most effective at improving vehicle fuel efficiency and most understandable to the average motorist?

**A/MA's response:**

For retail sales we would assume that any reduction in purchase/registration costs would attract attention. Also there will be individuals who will willingly pay a premium to reduce their environmental footprint such as the purchase of a hybrid vehicle which is usually sold at a premium compared with equivalent petrol models.

However, fleet vehicle selection decisions are driven from the perspective that they are an integral part of the organisation's business model, with a discreet cost to the organisation. The largest disincentives for change are those factors that increase the total cost of the fleet for the organisation.

A fleet manager must balance the relationship between the cost of the vehicle, projected whole-of-life costs, projected resale, Stamp Duty and Fringe Benefit Tax. Should a Fleet Manager purchase an LPG or diesel engine it is likely to cost upwards of \$2,000 over the petrol variant. This additional \$2,000 is then subject to stamp duty and FBT (where applicable). The **additional** cost to the organisation is:

For travel between 15,001 and 25,000 kilometres per year;  
 $\$2,000 \times \$60$  (3% stamp duty)  $\times$  (20% FBT,  $\times$  3 years)  $\$1,200 = \$1,260$  extra per vehicle  $\times$  100 vehicles =  $\$126,000$  (**additional cost**) for a three year ownership to the organisation for reducing emissions.

Should the organisation seek to reduce emissions through managing/reducing trips it can translate into higher costs as the FBT liability increases, for example:

For travel below 15,000 kilometres per year;  
 $\$2,000 \times \$60$  (3% stamp duty)  $\times$  (26% FBT,  $\times$  3 years)  $\$1,560 = \$1,620$  extra per vehicle  $\times$  100 vehicles =  $\$162,000$  (**additional cost**) for a three year ownership to the organisation for reducing emissions.

For travel between 25,001 and 40,000 kilometres per year;  
 $\$2,000 \times \$60$  (3% stamp duty)  $\times$  (11% FBT,  $\times$  3 years)  $\$660 = \$720$  extra per vehicle  
 $\times$  100 vehicles =  $\$72,000$  (**additional cost**) for a three year ownership to the organisation for reducing emissions.

As the above examples demonstrate, both Stamp Duty and more so FBT provide substantial disincentives for emission reduction initiatives by fleets. In reality FBT has become a burden to the effective management of fleets.

This is perhaps the most ironic, and counterproductive, element of FBT legislation; the inherent incentive to drive more, perhaps unnecessary, kilometres in order to minimise the tax payable.

**Question:**

What other considerations should be made in the design of any system?

**A/MA's response:**

While a reduction in 'stamp duty' would assist it is the lesser of the two evils of stamp duty and FBT.

We would suggest a complete overhaul of the FBT statutory formula system placing an emphasis on the lower the emissions created the lower the cost for fleet in place of the current philosophy of the more kilometres travelled the less you pay.

This could be in the form of a nominal reduction in the FBT price of the vehicle (the base for calculating FBT liability) so as not to discourage the adoption/inclusion of environmental and safety equipment/features. Alternately a tax reduction for organisations adopting emission reducing technology similar to that proposed in the USA Commercial Motor Vehicle Advanced Safety Technology Tax Act of 2008; see the last page of this submission for a synopsis of the bill currently before the US senate (August 1, 2008).

## **2.2 Provision of direct financial incentives/disincentives based on vehicle CO<sub>2</sub> emissions**

### **Proposal**

Encourage consumer uptake of low emission vehicles by establishing a balanced set of direct financial incentives and disincentives based on the CO<sub>2</sub> emissions performance of a vehicle.

Such offsetting incentives are frequently described as “feebates”, and this term is used in the remainder of the discussion of measure 2.2. A feebate scheme would provide a direct financial incentive toward the purchase of new vehicles with low CO<sub>2</sub> emissions, and also impose a financial penalty on the purchase of new vehicles with high CO<sub>2</sub> emissions.

### **Conclusions**

The Working Group considers that a feebate scheme has the potential to encourage the purchase of low emission vehicles. It notes, however, that the design and delivery of such an approach would raise matters of some complexity, requiring further assessments of its capacity to deliver improved fuel efficiency and the likely cost of such improvements.

### **Question:**

Is there evidence that direct rebate for low emission vehicles are an effective measure to improve overall vehicle fuel efficiency?

### **AfMA’s response:**

The USA, at both a State and Federal levels, employs direct incentives to encourage the uptake of new technology. Please see the synopsis (page 17) of the ‘Commercial Motor Vehicle Advanced Safety Technology Tax Act of 2008’ as one example. In addition, please also refer to our comments above regarding disincentives such as FBT.

Also in the USA new FET Incentives for Idling Reduction Units and Insulation have been introduced. The new financial rescue legislation created an exemption from the heavy vehicle excise tax for the cost of idling reduction units, such as auxiliary power units. The law also exempts the installation of advanced insulation, which can reduce the need for energy consumption by transportation vehicles carrying refrigerated cargo. Both exemptions are aimed at reducing carbon emissions.

At a basic level the adoption of new technology is predisposed to two sets of influences; the incentive and/or the disincentive. A sought-after outcome can be achieved without the need to provide an incentive. More importantly however, the removal of disincentives, such as those that currently negatively influence purchase decisions, is necessary to positively influence change.

**Question:**

If so, do you consider that the cost of rebates should be offset with fees on high emission vehicles (i.e. a feebate scheme)?

**AfMA's response:**

We would prefer to see a system that encourages change rather than one that is punitive, increases the cost of fleet operations, has little or no upside and can be inflationary.

**Question:**

Do you agree that any scheme should be based on CO<sub>2</sub> emissions and not linked to particular technologies?

**AfMA's response:**

We see an inherent problem with a sole emphasis on CO<sub>2</sub> as there are a number of undesirable emissions produced by an internal combustion engine. While any reduction of CO<sub>2</sub> is desirable we would not like to see this facilitate an increase in NO<sub>x</sub> and/or PM as has been the UK experience.

NO<sub>x</sub> and PM are recognised as producing negative health outcomes by the World Health Organisation (WHO), USA Environmental Protection Agency and the Australian Federal Government.

**Question:**

If a scheme was to be introduced, would you support it being based on a single threshold, or do you support a range of "class" based thresholds? What do you consider are the advantages and disadvantages of such approaches?

**AfMA's response:**

In principle we would support a range of class thresholds.

If a fleet is to be cost effective and operationally efficient, vehicles need to be selected on a fit-for-purpose basis. Because fleets need to be as diverse as the needs of the organisations that operate them, a single threshold could be impractical.

### **2.3 Develop fleet purchasing frameworks that incorporate greenhouse reduction objectives**

#### **Proposal**

A voluntary scheme that supports the adoption of best practice fuel efficiency strategies in government and business light vehicle fleets. The measure could include:

1. Provision of comprehensive information and advice on greenhouse abatement strategies to government and business fleet operators.
2. A national fleet accreditation process which supports government and business fleet operators to set and achieve voluntary, enterprise-level fleet greenhouse emission targets. This process would relate to all aspects of fleet procurement and management.

The benefits of a national scheme to improve the fuel efficiency of government and business fleets would assist in underpinning future investment decisions by vehicle manufacturers surrounding the *Green Car Challenge* and the *Green Car Innovation Fund*.

#### **Conclusions**

Government and business fleet operators represent a significant market for new vehicle sales in Australia. The procurement choices of fleet operators are eventually reflected in the overall profile of the Australian light vehicle fleet, as vehicles subsequently enter the second hand car market, often quite early in their life.

There is significant potential to improve the fuel efficiency of the light vehicle fleet over the long term by supporting fleet operators to procure more efficient vehicles. There are commercial benefits for fleet operators by reducing costs through improved fuel efficiency.

The measure outlined would enable Governments to work in partnership with fleet operators to improve the overall fuel efficiency of fleet vehicles.

#### **Question:**

Do you consider fleet operators would be motivated to participate in a national fleet accreditation process to improve the fuel efficiency of their fleet?

#### **AfMA's response:**

Yes. The Association ran such a successful national program in 2002/3 as part of its 'Greener Motoring Program'. This program, funded for 18 months via a Federal Government grant, consisted of a 'How to Guide' for emissions reductions and included a certificate of best practice awarded to fleets that could demonstrate a minimum of a ten percent reduction in either fuel usage or emissions.

As the structure and operation of this program is already established and proven, it provides an opportunity for the Government without incurring significant costs, to deliver rapid implementation and results under this measure.

The program is currently inactive due to a lack of ongoing funding, but a synopsis and a list of outcomes and achievements appears at the end of this submission.

**Question:**

If you do, what benefits do you consider fleet operators would expect to result from participation in such a scheme?

**AfMA's response:**

Operational cost reductions and recognition for best practice.

It would provide fleet managers with the opportunity to participate in a structured program, complete with reduction methodologies, rather than having to develop their own. Peer networking and support is another benefit to be derived from a well designed scheme.

**Question:**

Do you think that an accreditation scheme should have the sole goal of improving fleet fuel efficiency? Should additional goals be considered (such as air quality)?

**AfMA's response:**

Was stated above; we see an inherent problem with a sole emphasis on only CO<sub>2</sub> as there are a number of undesirable emissions produced by an internal combustion engine.

While any reduction of CO<sub>2</sub> is desirable we would not like to see this facilitate an increase in NO<sub>x</sub> and/or PM as has been the UK experience.

NO<sub>x</sub> and PM are recognised as producing negative health outcomes by the World Health Organisation (WHO), USA Environmental Protection Agency and the Australian Federal Government.

It is important to note that such a scheme would potentially extend beyond vehicle selection to embrace other key influencers of vehicle emissions such as vehicle maintenance and driver behaviour.

**Question:**

Are you aware of fleet fuel efficiency schemes operating within Australia or overseas? Has there been an analysis of the effectiveness of these schemes?

**AfMA's response:**

Yes as indicated above the AfMA 'Greener Motoring Program' was a successful program that achieved emissions reduction at an estimated cost of \$2.00 per ton of CO<sub>2</sub> equivalent.

### Category 3: Measures to Improve Consumer Awareness

#### 3.1 Including fuel consumption data in vehicle advertisements Proposal

Require standard fuel consumption and CO<sub>2</sub> data to be provided in vehicle advertisements to reinforce the current fuel consumption and greenhouse information provided to consumers via the current fuel consumption label and the *Green Vehicle Guide*. The measure is aimed at improving fuel efficiency by providing consumers with a capacity to choose better performing models from among those models that meet their needs.

##### **Conclusions**

The Working Group considers that although the benefits of this measure are difficult to quantify, its introduction could help reinforce the information provided on the *Green Vehicle Guide* and the fuel consumption label, by providing key information to consumers who may not visit or be aware of the GVG website, or not see the label until they visit a showroom.

Subject to advice from stakeholders, the Working Group's initial assessment is that the cost for manufacturers in complying with this measure would be limited and likely to be less than community benefits.

The Working Group considers that the most effective and quick way to implement the measure would be to negotiate amendments to the FCAI's current *Code of Practice for Motor Vehicle Advertising* - that is to adopt a voluntary approach in the first instance. If such a course is followed, it would be appropriate to monitor the degree to which industry observed the code of practice in their advertising. If there was not effective take up from the voluntary approach, then this measure would need to be reconsidered.

##### **Question:**

Do you consider there is a case for including fuel consumption and CO<sub>2</sub> emissions data in vehicle advertising?

##### **AfMA's response:**

Yes. However, there is some concern that current published fuel usage is difficult to achieve in reality. It should be assured that the method of determining fuel consumption should reflect real life conditions and not a theoretical calculation.

We understand that the USA recently revised the method by which fuel use is calculated. The outcome was that many vehicles' estimated fuel use were marked down, including the Toyota Prius.

We believe from news articles from the USA that several court actions are underway in there regarding a perceived difference between some manufacturers' advertised fuel consumption and that experienced by individuals in their day to day use of the vehicle. We are not aware of the progress of these actions or any outcomes that have or have not been reached.

It is accepted however that the current system provides useful, indicative comparisons between vehicles.

**Question:**

If so, what do you think would be the best way to implement it?

**AfMA's response:**

It is unlikely that a voluntary scheme would achieve the desired outcomes. The virtues of low fuel consumption/emission vehicles are already promoted in advertisements by manufacturers. A mandatory scheme would be consistent with the existing windscreen labelling requirement.

Providing CO<sub>2</sub> emissions and fuel consumption data in advertising for **all** vehicles has the potential to at least encourage buyers to consider these elements in their vehicle selection decisions. The effectiveness of such a mandate would be greatly influenced by the advertising rules/guidelines and their application (e.g. simply showing the emissions data in small print at the bottom of the screen or page might have very little effect).

**Question:**

Are there any matters not identified which would facilitate or impede the introduction of this measure? We are particularly interested in any published material you can point to.

**AfMA's response:**

See above reference to the USA. Also, in the UK, the CO<sub>2</sub> output is included in vehicle specifications and motoring magazines and this would appear to be the standard practice.

**Question:**

What do you consider are the costs and benefits of the measure, and their likely magnitude? What is the basis of your views on this question?

**AfMA's response:**

Vehicle manufacturers already provide such information. Mandatory minimum standard are not expected to impose unreasonable cost on manufacturers.

Companies wishing to promote the positive attributes of the emissions features of their products beyond the minimum requirement would do so at their discretion.

The key benefits of a well designed and implemented scheme would be to:

- (a) introduce emissions considerations into the mainstream of vehicle consumer information and
- (b) to increase, to at least some degree, the focus of manufacturers on the environmental performance of their products.

**Question:**

Are you aware of any other countries implementing similar measures, and whether there has been any analysis of their effectiveness?

**AfMA's response:**

See above reference to the USA. Also in the UK including the CO<sub>2</sub> output in vehicle specifications and motoring magazines would appear to be the standard practice.

### **3.2 Standards/labelling requirements for non-engine components which impact on fuel consumption.**

#### **Proposal**

Introduce standards or labelling requirements for non-engine components - such as tyres, tyre pressure monitors and vehicle air conditioning units - which impact on vehicle fuel consumption and CO<sub>2</sub> emissions.

#### **Conclusions**

There are a range of non-engine technologies that could deliver incremental benefits in CO<sub>2</sub> emissions from new vehicles, and in the case of low rolling resistance tyres, in both new and existing vehicles. Some of these would appear to be cost effective over the life of the vehicle.

Australia needs to maintain its existing policy approach of harmonisation with international standards rather than taking any unilateral action that would impose significantly higher costs on Australian consumers. Thus, in relation to component standards or labelling, it would be appropriate to wait for international work (particularly that being undertaken in Europe) to be completed. In the interim, there may be value in seeking the views of stakeholders on possible future standards and/or labelling requirements, and how they might be applied in Australia.

#### **Question:**

Do you consider that measures in relation to non-engine components are worth pursuing?

#### **AfMA's response:**

Most manufacturers of "non-engine components" include information about optimum performance operation on the product, either on an accompanying tag/label, or in an instruction manual. Manufacturers of such components might be encouraged to highlight or promote emissions-related aspects of their product or its operation, but this is likely to be a difficult process to manage, given the diversity of "components" that might be within the scope of such an initiative.

An alternative might be a wider, more coordinated approach to public education about component application and use, similar to the water and electricity conservation campaigns currently being run by governments and industry bodies.

#### **Question:**

Do you agree with the Working Group's assessment that Australia should move quickly to assess/establish within Australia any measures agreed to internationally?

#### **AfMA's response:**

Yes, we would suggest that Australia adopts/follows agreed international measures.

It is suggested that there might be value in requiring review/evaluation of “non-engine components”, even those already adopted in other countries, prior to implementation in Australia.

More comprehensive review/evaluation might be warranted for components of a specialised nature e.g. in the case of low rolling resistance tyres, there *might* be consequences in terms of:

- (a) the upstream and downstream environmental impact of production and disposal and
- (b) grip when the road surface is in poor condition or wet.

It should also be noted that “basic specifications” for a particular vehicle/model in Australia may differ significantly from that in other countries. However any system should not be able to be used as a non-tariff barrier to exclude vehicles with positive safety or environmental attributes from our market.

### 3.3 Heavy vehicle environmental rating scheme

**Proposal**

To provide guidance for heavy-vehicle buyers in relation to fuel efficiency.

**Conclusions**

As a consequence of the increasing freight task and the predominance of road transport in delivering freight, greenhouse emissions from heavy vehicles are increasing at a faster rate than those of cars, although from a lower base. An environmental rating scheme for heavy vehicles (when feasible) might assist some businesses to make more informed decisions in relation to the fuel consumption and emissions performance of heavy vehicles.

At present there is no international scheme in place to rate heavy vehicles, and consequently there is a lack of consistent, comparable data to underpin an official rating scheme. International action to adopt an emissions test cycle for heavy vehicles is underway and expected in 2011-2012.

In the interim, an internet-based qualitative guide to fuel efficiency and emissions performance could be of assistance to those businesses not able to obtain reliable fuel consumption information from manufacturers.

**Question:**

Do you consider there are gaps/inadequacies in the provision of heavy vehicle fuel efficiency data to business purchasers? Can you identify those deficiencies?

**AfMA's response:**

No comment.

**Question:**

If deficiencies exist, what do you consider is the most effective way to address these? Do you consider there is a case for web-based fleet management tools, and how should they be funded?

**AfMA's response:**

No comment.

**Question:**

What do you think would be the most important areas for any tools to address?

**AfMA's response:**

No comment.

**Question:**

Are you aware of any other countries implementing similar measures and whether there has been any analysis of their effectiveness?

**AfMA's response:**

No comment.

**Question:**

Are there any additional matters that would facilitate or impede the introduction of fleet management tools? We are particularly interested in any published material you can point to.

**AfMA's response:**

Please refer to the reference to the AfMA 'Greener Motoring Program' above.

**Question:**

Do you think the development of fuel efficiency guides for fleets would be a cost effective means to reduce fuel use of heavy vehicles?

**AfMA's response:**

See above

**Question:**

Do you consider there is a case for development of a heavy vehicle environmental rating scheme similar to the light vehicle rating scheme? Do you agree with the assessment that any scheme should wait for the finalisation of international emission measurement standards?

**AfMA's response:**

Yes. However, we note that there are no widespread emission checking facilities available for general use so we are unaware of any system that would allow the vehicle owner to confirm emissions from a vehicle. It should not be up to a vehicle purchaser to confirm a vehicle's compliance to emission requirements.

**Question:**

What do you think would be the most important areas for any scheme to address?

**AfMA's response:**

No comment

### **3.4 Establish a technology demonstration scheme for Australian road transport fleets linked to achievement of greenhouse outcomes**

#### **Proposal**

Establish a scheme aimed at assisting road transport operators to evaluate new low emission transport technologies applicable to light commercial vehicles, heavy trucks and buses. This would provide the transport industry with independent information on options to reduce fuel consumption.

#### **Conclusion**

The proportion of road transport CO<sub>2</sub> emissions, attributable to light commercial vehicles and the heavy vehicle sector is projected to grow over time. In general, there is a commercial imperative by vehicle users in these market segments to reduce fuel costs, through improved fuel efficiency, however operators also face a level of risk in adopting emerging technologies.

At present, there are no measures in place which specifically seek to improve the fuel efficiency of these market segments. The Working Group considers that a measure to encourage the adoption of low emission technologies within the light commercial and heavy vehicle market segments could be worthy of consideration.

#### **Question:**

Do you consider a subsidy scheme to support the development and trial of emerging low emission technologies is necessary to encourage innovation within the light commercial and heavy vehicle market segments? If so, is it an effective approach?

#### **AfMA's response:**

AfMA would support a scheme for the development and trial of emerging low emission technologies.

An “emerging” technology, whether low-emission or not, will tend to hold some concerns for consumers and can include:

- ✓ safety (including the potential for litigation)
- ✓ reliability (including the potential for vehicle failure and resulting downtime)
- ✓ vehicle warranty (if it is an after-market application technology)
- ✓ cost (including return-on-investment)

Such concerns may be best addressed by the industry - including manufacturers, industry associations and those responsible for standards and compliance – evaluating and officially approving/endorsing the technology.

#### **Question:**

Are there additional (non-financial) barriers to the adoption of proven and emerging low emission technologies within the light commercial and heavy vehicle segments?

**A/MA's response:**

As well as facilitating new technology an emphasis should be placed on removing barriers to its adoption/availability.

For example we understand that new technology combining the use of diesel and LPG fuels that has measurable improvements in emissions has been delayed due to Australian Design Rules (ADR's) requirements.

The Australian standards for emission testing of heavy duty diesel/LPG systems require full ADR certification to be undertaken. However, this certification cannot be performed in Australia and the huge financial burden to transport heavy duty engines overseas for testing is a significant disincentive to the use of this technology locally. This same disincentive also applies to other alternative fuel based emission reduction technologies such as natural gas.

A/MA requests that the Working Group consider the creation of suitable heavy vehicle ADR testing facilities within Australia as part of this measure so that other emission reduction technologies have an opportunity to be proved and adopted locally. However, any system should not be able to be used as a non-tariff barrier to exclude vehicles with positive safety or environment attributes from our market.

The Parliament of Victoria Road Safety Committee 'Inquiry into Vehicle Safety' made comment in its report on the relevance and negative impact of ADR's.

“Appropriate ADR standards do not exist for a number of leading edge technologies.

Of greater concern to the Committee, some ADR's are inadvertently restricting the fitment of leading edge technologies to Australian vehicles. Mr Robertson from the Federal Department of Infrastructure, Transport, Regional Development and Local Government stated at the hearing that:

What we are finding increasingly is that the regulations, some of which have histories going back 30 years, just simply did not foresee the availability of technology, and you find that you are trying to put it into the market and the regulations are stopping it.

ADR's are not keeping pace with technologies being fitted to vehicles sold in Australia. While the Committee appreciates that an ADR cannot be developed ahead of a new technology, there is a need for the ADR review process to be more responsive to developments in vehicle safety”.

The Committee went on in its recommendation:

“Recommendation:

That through the Australian Transport Council, the Minister for Roads and Ports pursues the replacement of the Australian Design Rules with United Nations Economic Commission for Europe regulations for vehicle standards.”

**Question:**

Are you aware of any other countries implementing similar measures and whether there has been an analysis of its effectiveness?

**AfMA's response:**

As the paper already identifies there are several schemes such as the US mandatory Corporate Average Fuel Economy standard (CAFE).

Europe is planning to move to more stringent fuel consumption and emissions standards. Euro 5 and Euro 6 emission standards for light petrol and all diesel vehicles will be implemented from late 2009 and late 2011 respectively. The primary focus of these new standards is on reducing NOx from all vehicles and PM emissions from light diesel vehicles.

Fuel sulphur levels in Europe are also being lowered from 1 January 2009 to 10ppm. In diesel, this is primarily to support the Euro 5 emission standards for light and heavy vehicles, and in petrol, to facilitate the adoption of the widest possible range of fuel saving technologies.

The EU, Japan and USA (where import tariff is removed in 2010) fuel consumption targets will set the benchmark for new vehicles in the Australian market. Failure of Australian produced vehicles to match/better imports could see them disadvantaged.

**Commercial Motor Vehicle Advanced Safety Technology Tax Act of 2008 (Introduced in Senate)**

S 3428 IS

110th CONGRESS 2d Session

**S. 3428**

To amend the Internal Revenue Code of 1986 to provide a credit against income tax to facilitate the accelerated development and deployment of advanced safety systems for commercial motor vehicles.

**IN THE SENATE OF THE UNITED STATES August 1, 2008**

Ms. STABENOW (for herself, Mr. VOINOVICH, and Mrs. DOLE) introduced the following bill; which was read twice and referred to the Committee on Finance

**Extract**

**SEC. 45Q.**

**CREDIT FOR COMMERCIAL VEHICLE ADVANCED SAFETY SYSTEMS.**

- (a) Allowance of Credit- For purposes of section 38, the commercial vehicle advanced safety system credit determined under this section is an amount equal to 50 percent of the cost of any qualified commercial vehicle advanced safety system placed in service by the taxpayer during the taxable year.
- (b) Limitations-
  - (1) PER SYSTEM- The credit allowable under subsection (a) for each qualified commercial vehicle advanced safety system shall not exceed \$1,500.
  - (2) PER VEHICLE- The credit allowable under subsection (a) with respect to property for each qualified commercial vehicle shall not exceed--
    - (A) \$3,500, reduced by
    - (B) the aggregate amount of credit allowed to the taxpayer under this section with respect to such vehicle for all prior taxable years.
  - (3) PER TAXPAYER- The credit allowable under subsection (a) to the taxpayer for the taxable year shall not exceed \$350,000.
- (c) Qualified Commercial Vehicle Advanced Safety System- For purposes of this section, the term 'qualified commercial vehicle advanced safety system' means any property which is part of a system installed on a qualified commercial vehicle if--
  - (1) (A) such system is a brake stroke monitoring system, lane departure warning system, collision warning system, or vehicle stability system, or
  - (B) such system is specifically identified by the Administrator of the Federal Motor Carrier Safety Administration or the Administrator of the National Highway Traffic Safety Administration for the purposes of this paragraph as significantly enhancing the safety or security of the driver, vehicle, passengers, or load of a qualified commercial vehicle and such identification is in effect as of the date such system is placed in service by the taxpayer,
  - (2) such system is certified by the manufacturer of such system (before such vehicle is first used by the taxpayer for its intended purpose after installation of such system)--
    - (A) to be appropriate for the make, type, and model of the qualified commercial vehicle on which it is to be installed, and
    - (B) to function as designed if installed properly,
  - (3) in the case of a system which is not installed by the manufacturer of the qualified commercial vehicle or by an installer authorized by the manufacturer of such system, such system is certified by the installer of such system to be properly installed and functioning on the vehicle before such vehicle is first used by the taxpayer for its intended purpose after installation of such system,
  - (4) the original use of such system begins with the taxpayer, and
  - (5) depreciation (or amortization in lieu of depreciation) is allowable with respect to such system.

## The Original AfMA Greener Motoring Program (2002/3)

### Key Performance Indicators (KPI's)

The project met, and in some cases exceeded, its entire program KPI's. The following table is an overview of the major KPI's status at end of project, June 30<sup>th</sup> 2003.

Subject KPI	Achieved To Date	Contract KPI	Status
<b>Work to be performed</b>			
Develop How to Guide	Complete 26 <sup>th</sup> Feb 2002	Complete by 26/02/03	Achieved
Publish How to Guide	Complete 26 <sup>th</sup> Feb 2002	Complete by 26/02/03	Achieved
Establish Help Desk	Complete 26 <sup>th</sup> Feb 2002	Complete by 26/02/03	Achieved
Establish Leaders program	Complete 26 <sup>th</sup> Feb 2002	Complete by 26/02/03	Achieved
Establish Certification program	Complete 26 <sup>th</sup> Feb 2002	Complete by 26/02/03	Achieved
Establish Case Study program	Complete 26 <sup>th</sup> Feb 2002	Complete by 26/02/03	Achieved
Establish Public Relations	Complete 26 <sup>th</sup> Feb 2002	Complete by 26/02/03	Achieved
Establish Marketing program	Complete 26 <sup>th</sup> Feb 2002	Complete by 26/02/03	Achieved
<b>Program Targets</b>			
<b>Organisations registered</b>	663 registered	500 to be registered	Exceeded
<b>Target audience contacts</b>	1,838 contacts made	1,800 to be contacted	Exceeded
<input type="checkbox"/> Three mailings	1 <sup>st</sup> Mail out in 22 <sup>nd</sup> Feb 02	Complete by Feb 02	Achieved
	2 <sup>nd</sup> Mail out on 11 <sup>th</sup> June 02	Complete by July 02	Achieved
	3 <sup>rd</sup> Mail out on 4 <sup>th</sup> Nov 02	Additional to contract	Achieved
<input type="checkbox"/> AfMA Conference	2002 program	Complete by March 2002	Achieved
	2003 program	Complete by March 2003	Achieved
<input type="checkbox"/> AfMA Breakfast Seminars	All States completed by April 03	Complete by April 2003	Achieved
<b>Establish database</b>	17,000 in database	10,000 database	Exceeded
<b>Invite audience to participate</b>	17,000 in database	10,000 database	Exceeded
<b>Identify most likely targets</b>	Top 500 contacted	Complete by 30 June	Achieved
<b>Attendance at program launch</b>	136 attended	150 prime target audience	Completed
<b>Market Penetration</b>	^57% (687,274 vehicles)	55% (660,000 vehicles)	Exceeded
<input type="checkbox"/> Two surveys	1 <sup>st</sup> survey complete June 02	1 <sup>st</sup> complete June 02	Completed
	2 <sup>nd</sup> survey complete Nov 02	2 <sup>nd</sup> complete Nov 02	Completed
<b>Certificate of best practice</b>	22	20 issued	Exceeded
<input type="checkbox"/> Award ceremony	1 <sup>st</sup> ceremony Oct 17 <sup>th</sup> 2002	Additional to contract	Completed
	2 <sup>nd</sup> ceremony scheduled June 03	Additional to contract	Completed
<b>Best practice case studies</b>	21	20 issued	Exceeded
<b>Leaders program</b>	22	20 engaged	Exceeded
<b>Program Outcomes</b>			
<b>Fuel reduction target</b>	# 12 organisations	15% reduction	Exceeded
<b>Program implementation</b>	*324	180 organisations	Exceeded
<b>Changed practices</b>	*324	120 organisations	Exceeded
<b>Reduction of annual CO2-e</b>	#52,119 tons/equivalent	20,000 tons/equivalent	Exceeded

#Total from the organisations awarded the "Certificate of Best Practice".

\*Extrapolated from the results of surveys one and two where 58% of survey respondents (59 in total responded) confirmed that they had or will be changing their practices and procedures. Total registrants at December 15 2002 were 558 organisations.