Our ref: CM-081-MG-0425.01

14 November 2008

Mr David Borthwick
Secretary
Department of the Environment, Water, Heritage and the Arts
GPO Box 787
CANBERRA ACT 2601

Dear Mr Borthwick

Vehicle fuel efficiency consultation

I welcome the opportunity to comment on the discussion paper for vehicle fuel efficiency.

The National Transport Commission (NTC) is an independent body established under Commonwealth legislation and an Intergovernmental Agreement. The NTC leads transport reform nationally to meet the needs of transport users and the broader community for safe, efficient and sustainable land transport.

From the options outlined in the discussion paper, the NTC recommends developing mandatory carbon dioxide standards for new light vehicles as the priority option. The NTC's analysis shows this approach can reduce carbon emissions with an overall saving to motorists. Indeed, Australian motorists could save billions of dollars from using less fuel as a result of this option. The option complements the carbon pollution reduction scheme and can also achieve other policy objectives that the scheme does not address such as energy security.

The NTC also recommends strengthened demand-side policy measures to encourage consumers to choose the low-carbon vehicles.

It could be argued that introducing the carbon pollution reduction scheme means that no additional measures are needed to reduce carbon emissions. However, there is recognition that additional policy measures are needed to reduce emissions, such as those in the discussion paper. The Australian Government's 20 per cent Mandatory Renewable Energy Target by 2020 is an example of an additional policy measure to support long term goals of reducing emissions.

The attachment contains a more detail response to the discussion paper. Please make this submission publicly available.

Should your officers wish to discuss this submission, they can contact Dr Neil Wong, Senior Manager Environment, by telephone (03 9236 5000) or by email (nwong@ntc.gov.au).

Yours sincerely

Nick Dimpoulos
Chief Executive

ATTACHMENT

This attachment contains a summary of the NTC's recommendations and detailed comments about the vehicle fuel efficiency discussion paper.

Summary

The NTC recommends:

1. developing and implementing mandatory carbon dioxide standards (sales-weighted average) for light vehicles as a priority. The NTC's analysis shows that this measure could save Australian motorists billions of dollars in fuel costs as well as reducing emissions; and

2. developing a range of measures to create the demand for low-carbon light vehicles that supports the introduction of mandatory carbon dioxide standards.

Structure of submission

The submission is structured into:

- **world's best practice for vehicle fuel efficiency:** defines this best practice and discusses the opportunity to reduce Australia's transport emissions;
- **carbon dioxide/fuel efficiency standards for new light vehicles:** provides evidence for the need for this measure;
- **demand-side measures:** discusses these measures;
- **measures to improve consumer awareness:** discusses these measures; and
- **other considerations:** discusses some broader issues.

World's best practice for vehicle fuel efficiency

COAG requested the COAG working group for vehicle fuel efficiency to "develop jointly a package of vehicle fuel efficiency measures designed to move Australia towards international best practice." In the discussion paper, the COAG working group does not state what international best practice is. From information contained in the report, the NTC concludes that international best practice is:

- for new light vehicle[1] fleets, 163 grams of carbon dioxide per kilometre (g/km) in 2007, 130 g/km in 2012, and 100 g/km in 2020[2]; and
- for business and government fleets for new light vehicles, 167 g/km[3] in 2007.

The Australian figures for comparison are:

- 226 g/km[4] for new light vehicles in 2007, and 222 g/km[5] for 2010 (see Figure 1). The 2007 value is 39 per cent higher than international best practice. The 2010 value is 55 per cent higher than international best practice; and
- 234 to 251 g/km[6] for business and government's new light vehicle fleets in 2007. This is 40 to 50 per cent higher than international best practice. Figure 2 shows more details of these business and government fleets.

There is the opportunity for large reductions in Australia's carbon emissions since the Australian emissions for new light vehicles are higher than international best practice. For example, if the Australian average emissions for new light vehicles achieved the international best practice figure of 163 g/km rather than 226 g/km in 2007, this would have resulted in:

- 16.5 million tonnes fewer emissions over the vehicle life. (To put this potential reduction in perspective, Australia's transport sector produced 80.6 million tonnes of CO_2 emissions in 2005); and
- About $9 billion in savings from fuel[7] for Australian motorists over the vehicle life.

[1] 'Light vehicles' refers to vehicle classes M1 and N1 under the Australian Design Rules.
[2] Using the European Union figures on page 41 of the vehicle fuel efficiency discussion paper.
[3] Using UK figures on page 48 of the vehicle fuel efficiency discussion paper.
[4] Vehicle fuel efficiency discussion paper, page 39.
[5] Federal Chamber of Automotive Industries' target for 2010.
[6] Figures compiled using VFACTS data for Australian vehicles sales for 2007 and green vehicle guide (www.greenvehicleguide.gov.au).
[7] Assuming a fuel price of $1.20 per litre.

Figure 1. Comparing international best practice with Australian carbon dioxide emissions for new light vehicles

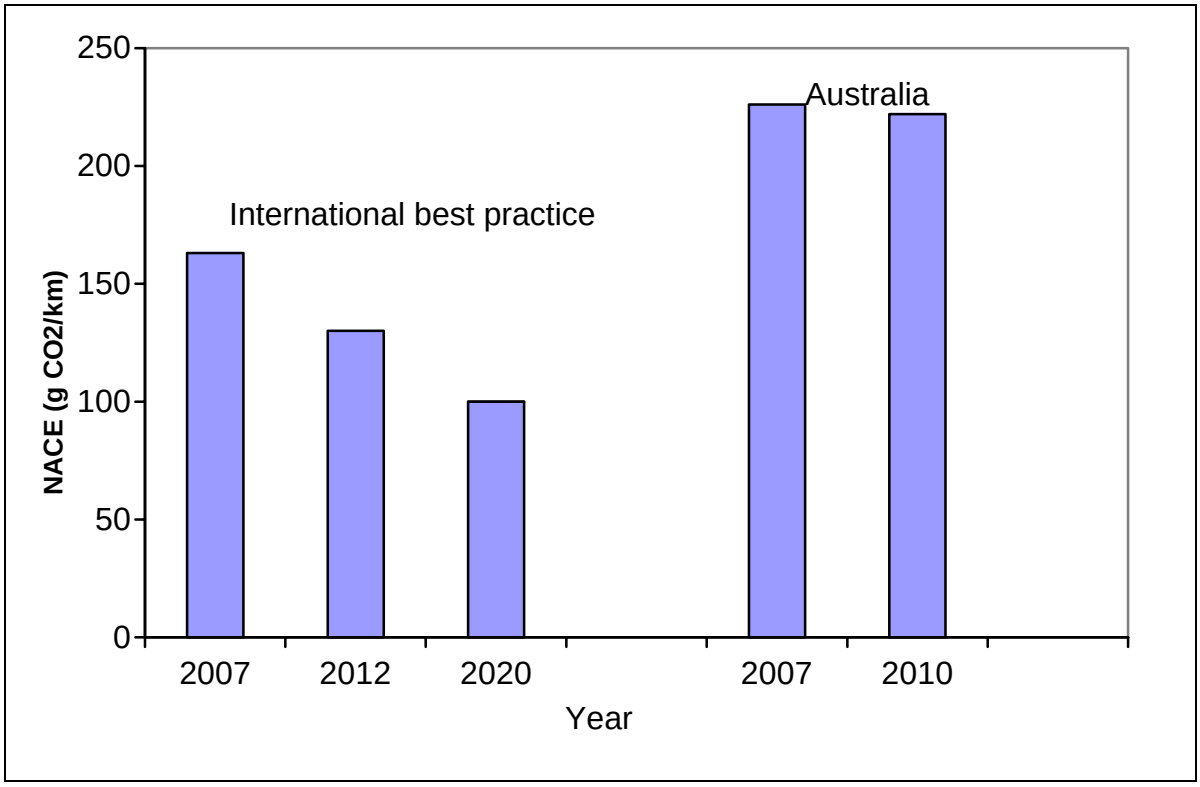
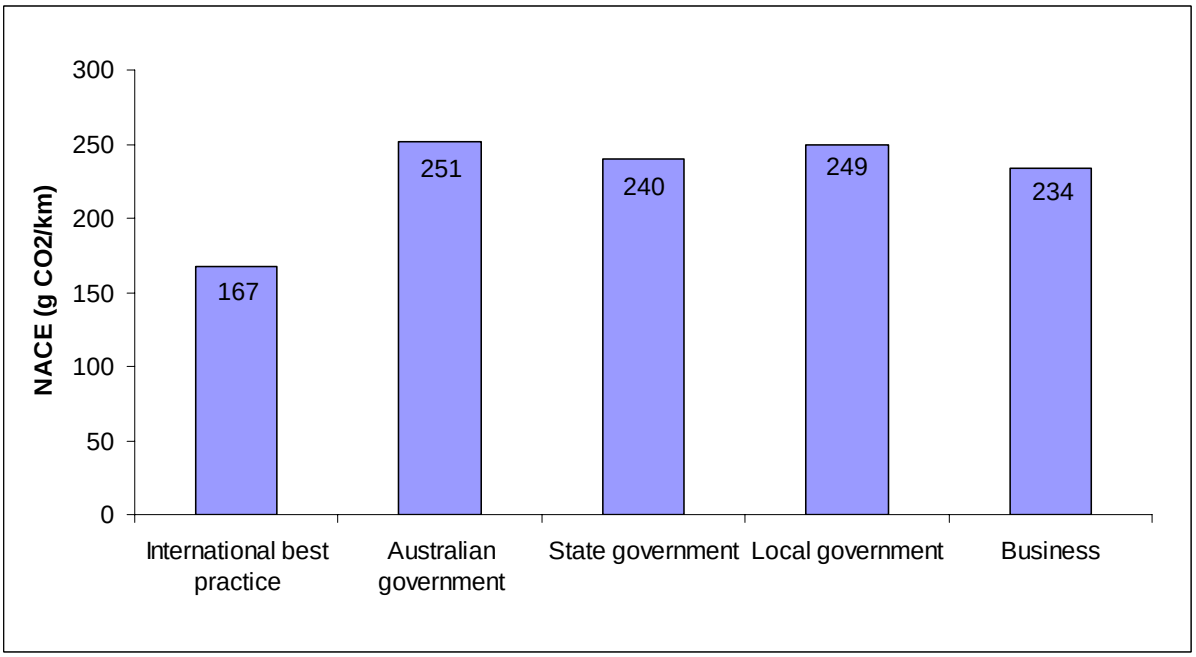


Figure 2. Comparing international best practice for business fleets with Australian government and business light vehicle fleets, 2007



Source: VFACTS data and green vehicle guide

Carbon dioxide/fuel efficiency standards for light vehicles

Carbon dioxide standards for new light vehicles have been a successful way to reduce carbon dioxide emissions. The European Union (EU) reports that its carbon standards for new light vehicles will reduce carbon emission by 75 to 80 million tonnes in 2010[8].

Many have argued for carbon standards or fuel efficiency standards for new light vehicles:

- The EU has proposed mandatory carbon standards for new light vehicles replacing the voluntary standards.
- Professor Julia King who undertook the UK Treasury's review[9] of low-carbon vehicles. Professor King recommended that the EU should continue its proposed regulatory approach for light vehicles and adopt a 100 g/km new sales-weighted average target for 2020.
- The International Energy Agency's advice[10] to the G8 recommends that governments introduce regulatory fuel efficiency standards for light vehicles to achieve significant energy savings.
- The Jamison Group's report[11] (commissioned by the NRMA) recommends Australia adopts compulsory carbon standards for new light vehicles.

Mandatory energy efficiency measures have been successful at reducing carbon emissions with an overall saving. For example, the Victorian government has introduced a mandatory energy efficiency program for industry[12] that targets energy use. At the end of 2007, this program had delivered annual greenhouse gas cuts of 1.23 million tonnes of carbon dioxide and savings to business of $38.2 million each year. The average payback period for these efficiency actions was 20 months.

Introducing carbon standards for light vehicles is low cost option over the life of the vehicle. For example, the King Report argues that while there is an additional purchase cost for a new light vehicle, this cost can be recouped in three to five years for UK motorists. However, consumers heavily discount fuel efficiency savings, so future savings from choosing a more fuel efficient vehicle are not fully reflected in purchasing decisions.[13] In the US, the new 2015 economy standards for light vehicles would cost an additional $650 per vehicle, but this cost would be recovered by the motorist from fuel savings in 56 months.[14]

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[8] European Conference of Ministers of Transport (2007). *Cutting Transport CO2 Emissions: What Progress?*
[9] Her Majesty's Treasury (2008). *The King Review of Low-carbon Cars. Part II: Recommendations for Action*, March.
[10] International Energy Agency (2008). *Review of International Policies for Vehicle Fuel Efficiency,* August.
[11] NRMA (2008). *A Roadmap for Alternative Fuels in Australia: Ending our Dependence on Oil*, July.
[12] http://www.epa.vic.gov.au/bus/erep/EREP_more_about_erep.asp
[13] Her Majesty's Treasury (2008).
[14] Vehicle fuel efficiency discussion paper, page 39.

The summary of potential measures in the discussion paper (page 87) indicates that the relative estimated total cost of introducing carbon standards for new light vehicles is high to medium. However, the discussion paper doesn't identify the stakeholders that these are high to medium costs. From the data outlined above, the additional vehicle purchase costs due to these standards can be recouped over three to five years. Therefore, NTC concludes that this measure is low cost with overall savings motorists over the life of the vehicle.

The COAG working group contends that there is no evidence that the voluntary approach (the national average fuel consumption target) has had any influence in reducing fuel consumption in Australia. Likewise, the NTC is not aware of any evidence that this voluntary approach would reduce fuel consumption. Setting this target was not done through a public process but through direct negotiations between the Commonwealth government and the Federal Chamber of Automotive Industries (FCAI). As such, the NTC does not know the rationale used to select the target. In addition, if it is assumed that the target was set at an automotive company level, the data in Figure 3 shows that three of the eleven companies listed do not appear to currently meet the FCAI's target of 222 g/km.

From the evidence outlined above, the NTC argues that introducing mandatory carbon dioxide standards for new light vehicles offers the greatest potential to reduce carbon emissions in the transport sector. It also leads to major fuel savings to motorists. The NTC's example above shows that if Australian light vehicles sold in 2007 had meet world's best practice, Australian motorists would save $9 billion dollars in fuel costs over the life of the vehicles.

The main issues in developing carbon dioxide standards for new light vehicles are:[15]

- **Scope**. This scope needs to be broad enough to cover all light vehicles and it should not allow leakage into categories not covered by the standards. The vehicles under the scope of ADR81/02 would be suitable.

- **Test procedures.** Test procedures should reflect as many factors reflecting the on-road fuel efficiency as possible (e.g. air conditioning use).

- **Technology neutral.** The standard should not promote any particular technologies.

- **Flexibility.** The standards should have flexibility to allow the reduced emissions with least cost. This could include a mechanism like the one proposed in New Zealand where automotive companies can trade credits for vehicles that are better than the standard.

- **Stringency and timing.** The stringency and timing of the standards should take into account world's best practice and be set at a level that maximises net social benefits. The discussion paper outlines a two-step standard to provide adequate time for the automotive industry to respond. However, this approach needs a process for regular target setting every seven to ten years (or in line with future vehicle model cycles)[16].

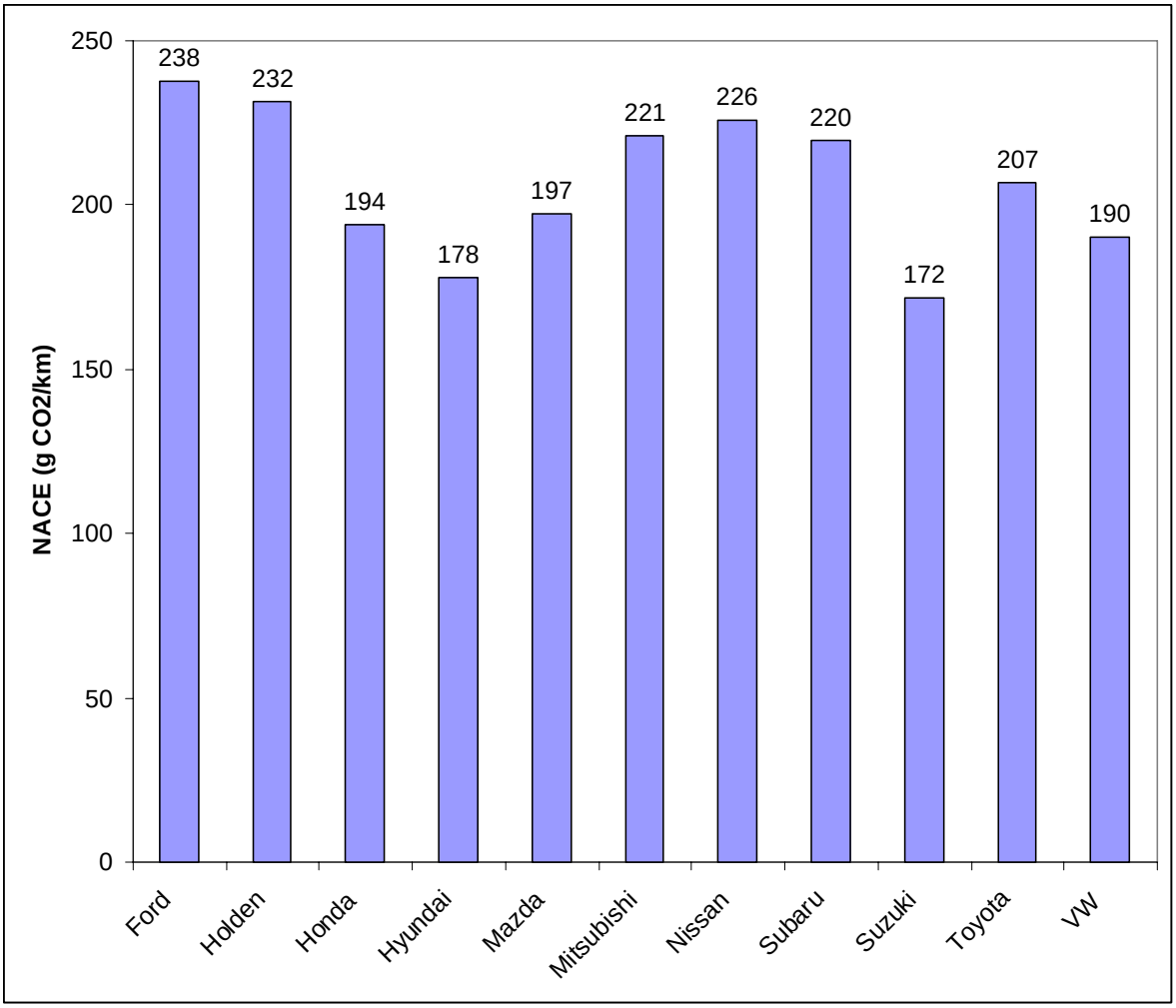
- **Local considerations.** Local automotive industry issues need to be considered in developing mandatory standards for light vehicles.

[15] As detailed in International Energy Agency (2008).
[16] This is recommendation 4 from Her Majesty's Treasury (2008).

While the carbon dioxide standards lead to overall savings to motorists, it will be the automotive companies that need to implement the standards. Figure 3 shows the average fleet emissions by automotive company for 2007. The range of average fleet emissions is from 172 g/km to 238 g/km. These automotive companies will be impacted differently. Industry consultation will be an important input into developing the standard. The NTC argues although there will be costs to industry, these costs will be passed on to consumers who will benefit from overall fuel savings over the life of the vehicles.

Demand-side measures can help industry in implementing the standards by creating demand for low emissions vehicles. In addition, the Australian Government's green car innovation fund of $1.3 billion will assist industry in meeting the carbon dioxide standards.

Figure 3. Sales-weighted fleet emissions by automotive company for 2007



Source: VFACTS data and green vehicle guide

Demand-side measures

The discussion paper lists three options to increase the demand for low emissions vehicles. Unlike the available evidence for mandatory carbon dioxide standards for light vehicles, the discussion paper has mainly qualitative information for the demand-side measures. As such, the NTC found it difficult to make a choice about the option or options to pursue. However, all three measures appear to be viable options.

The NTC recommends developing measures to create the demand for low-carbon light vehicles. This work should examine the three demand-side measures outlined in the report in more detail and recommend the policy option or options. This work should be pursued at the same time as developing mandatory carbon dioxide standards for light vehicles.

Measures to improve consumer awareness

The NTC supports ways to improve consumer awareness for low-carbon light vehicles. However, as noted above, consumers heavily discount fuel efficiency savings, so future savings from choosing a more fuel efficient vehicle are not fully reflected in purchasing decisions.[17] The NTC's recommendations outlined above would overcome this problem.

Other considerations

Social impacts

Research by Dodson and Sipe[18] has indicated that some outer suburban regions with low levels of public transport services have high proportions of car-dependent low-income households, which expend a significant proportion of their income running two or more vehicles. As it is unlikely in the short to medium term that adequate transport alternatives to the car will be available in these outer suburban regions, introducing mandatory carbon dioxide standards for new light vehicles can lead to more affordable transport mobility for these households.

Fleet purchasing

The fleet purchasing policies also have social impacts. For example, governments and business will purchase their light vehicle fleets based on a number of factors such as "buy Australian" and the resale value of the vehicle. As Figure 2 shows, in 2007 government and business fleets contained relatively high carbon dioxide emitting vehicles. After two or three years, these fleet vehicles are sold into the second hand market. The purchasing decisions made by fleet managers about vehicle fuel efficiency will be a major factor for the carbon emissions emitted over the rest of the vehicle life. The purchaser of an ex-fleet vehicle will have higher fuel costs for the rest of the vehicle life compared to a situation where the fleet manager purchased a fuel efficient, low carbon vehicle. Figure 4 shows the additional emissions over the lives of the vehicles produced by government and business fleets compared to international best practice for 2007.

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[17] HM Treasury (2008).

[18] As referenced in Garnaut (2007). Issues Paper - Forum 5, Transport, Planning and the Built Environment. Garnaut Review.

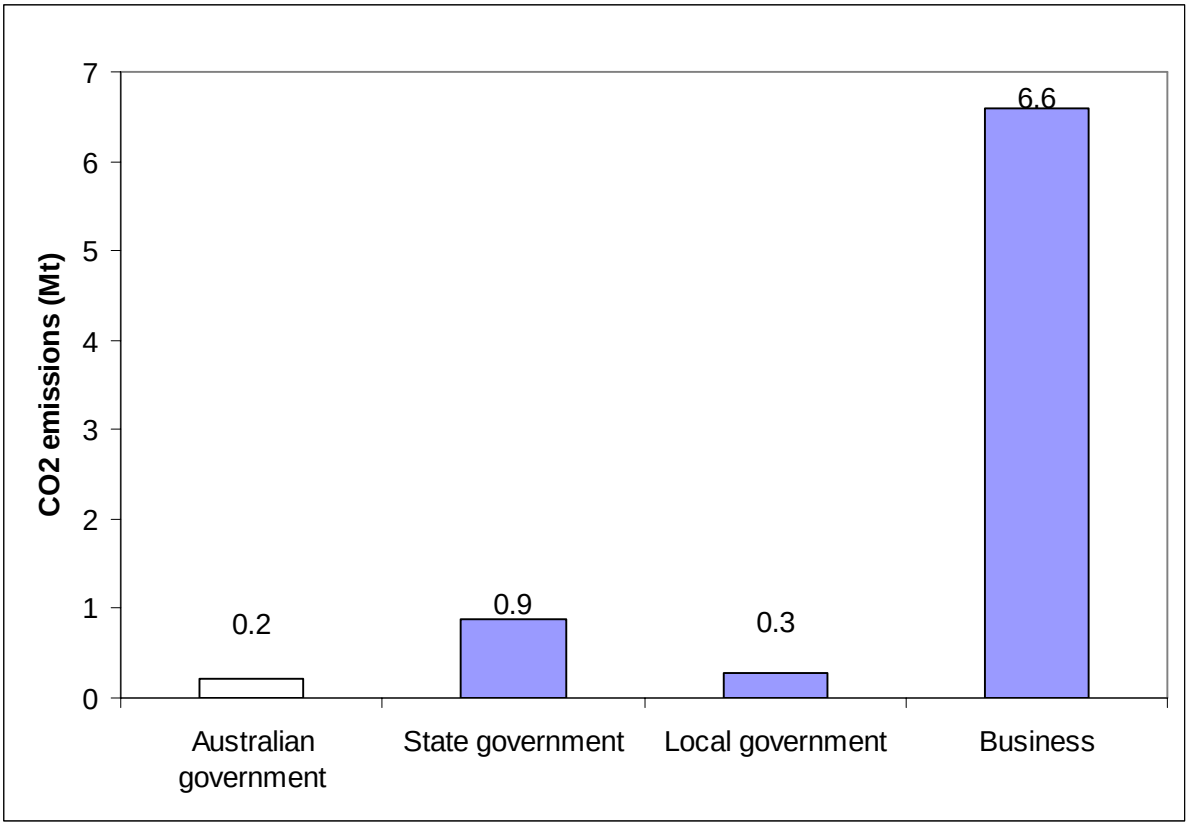
Industry policy

The Australian Government's new industry policy – a new car plan for a greener future – supports the Australian automotive industry by providing $6.2 billion in assistance over 13 years. It includes a green car innovation fund providing $1.3 billion over ten years. Integrating industry policy with other policy objectives is important to produce good public policy outcomes. Introducing mandatory carbon dioxide standards for new light vehicles with demand-side measures can support transitioning the Australian automotive industry into a greener future.

Slow penetration of low-carbon vehicles in the Australian fleet

As the discussion paper's scenario modelling indicates, it takes a long time for improvements in the average fuel consumption of new vehicles to flow through to the Australian vehicle fleet. This is due to the average vehicle age for Australian vehicles. Therefore, the NTC argues that mandatory standards and demand-side options need to be developed now.

Figure 4. Reductions in carbon dioxide emissions over the vehicle life if Australian business or government fleets met international best practice for 2007



Source: VFACTS data and green vehicle guide