

Senate Rural Affairs and Transport Committee



**AUSTRALIAN
AUTOMOBILE
ASSOCIATION**

Constituent Members



Inquiry into Future Oil Supply and Alternative Transport Fuels

Australian Automobile Association
March 2006

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WORLD WIDE AFFILIATION THROUGH THE AIT AND FIA



Terms of Reference

Australia's future oil supply and alternative transport fuels, with particular reference to:

- a) projections of oil production and demand in Australia and globally and the implications for availability and pricing of transport fuels in Australia;
- b) potential of new sources of oil and alternative transport fuels to meet a significant share of Australia's fuel demands, taking into account technological developments and environmental and economic costs;
- c) flow-on economic and social impacts in Australia from continuing rises in the price of transport fuel and potential reductions in oil supply; and
- d) options for reducing Australia's transport fuel demands.

1. Introduction

Australian Automobile Association (AAA) represents the interests of around 6 million motorists through its State and Territory Motoring Clubs and Associations. It has a vital interest therefore in issues associated with Australia's future oil supply and alternative transport fuels.

Some aspects of the Terms of Reference (TOR), however, are beyond the expertise, knowledge and project orientation of AAA and its members.

For example, Part (a) of the TOR relates to projections of oil production and demand in Australia and globally and the implications for availability and pricing of transport fuels in Australia.

Projections of oil production is not an activity which AAA undertakes and thus is not a topic where AAA can contribute a great deal. There are other organisations that make this their primary business or undertake the task as part of their role. In Australia, organizations such as ABARE, Department of Industry, Tourism and Resources and the CSIRO make significant contributions in this area.¹ The Bureau of Transport and Regional Economics has also provided contrasting opinions on whether the world is running out of oil in a recent research paper.² We don't propose to enter the debate in this submission, although the comments in a recent CEDA Report are worth noting:

'Amid the uncertainty (about when the world will reach its peak production level), we can be confident of two things:

1. Despite common anxieties that the oil depletion will plunge us into a dark age, something more prosaic will occur. We will move to the next lowest cost options, which by that time may not entail great costs.
2. The better our response to our current difficulties, the better placed we will be for handling that perhaps more difficult, oil depleted world.'³

Publications from a number of commentators and organisations as well as the Federal Government's White Paper, *Securing our Energy Future* continue to help inform AAA on a range of transport energy issues. On the international front, obviously the International Energy Agency plays a leading role and its research is invaluable. And the US Energy Information Administration website provides a wealth of information on fuel production, prices and forecasts.⁴

¹ See, for example, ABARE, *Australian Energy: National and State projections to 2029-2030* October 2005; Department of Industry, Tourism & Resources, *Australian Petroleum Statistics*, monthly publications; CSIRO, *Energy and Transport, Outlook to 2020*, September 2002

² BTRE, *Is the world running out of oil?* Working Paper 61, 2005

³ CEDA White Paper No 26, *Australia in world of high cost energy*, Kerry Lin & Nicholas Gruen, February 2006

⁴ [Hhttp://www.eia.doe.gov/H](http://www.eia.doe.gov/)

Although AAA is not directly involved in primary research on demand and supply for oil, AAA keeps a keen eye on developments through the various publications referenced and a range of other published material.

The same can be said of Part (b) of the TOR dealing with the potential of new sources of oil and alternative transport fuels to meet a significant share of Australia's fuel demands. In this context however, we note the views expressed in *Securing Australia's Energy Future*, that:

'Australia's heavy reliance on petroleum fuels for transport is expected to continue because of the lack of competitively priced alternatives, the long life expectancy of existing fuel production and distribution infrastructure and the stock of vehicles. The next generation of vehicles, which will include some hybrids, will not significantly change this. Alternative transport fuels like hydrogen, while potentially offering significant environment benefits, are some time away from being price-competitive or being ready for mass application.'⁵

Although AAA cannot contribute significantly to Part (a) and (b) of the TOR – other than through secondary research findings – we would like to emphasise that the organisation closely monitors fuel prices in over 100 locations across Australia on a daily basis. Our Constituents also publish a wide range of fuel information on their websites. The Public Policy Group of AAA has also addressed the issue of 'peak oil'.

As far as Parts (c) and (d) of the TOR are concerned, AAA is able to offer some views. For example, in relation to Part (c), our Constituents survey the impact which current high petrol prices are having on its members. We will report some of the findings in this submission. As for part (d) AAA continues to contribute to the greenhouse debate and has identified a range of options for reducing Australia's transport fuel demands. These measures will be reported here, together with a brief discussion of the potential for the use of alternative fuels.

In responding to the TOR, we will set the scene in Section 2 by presenting some key facts about the relationship between energy and transport. We will then highlight some important findings from AAA surveys about the importance of the motor vehicle, motorists' concern about petrol prices, the cost of petrol as a function of total motoring costs and household expenditure.

In Section 3, we will identify some options for achieving reductions in fuel use, including promotion of fuel efficient cars, adopting Intelligent Transport Systems (ITS), improving road infrastructure to alleviate congestion, investing in public

⁵ Department Prime Minister & Cabinet, *Securing Australia's Energy Future*, June 2004, Chapter 4, page 82

transport and promoting fuel efficient driving. Fuel tax reform is a key component of some of these options.

In Section 4, we will address the issue of biofuels and articulate AAA's position on biofuels in general and ethanol in particular.

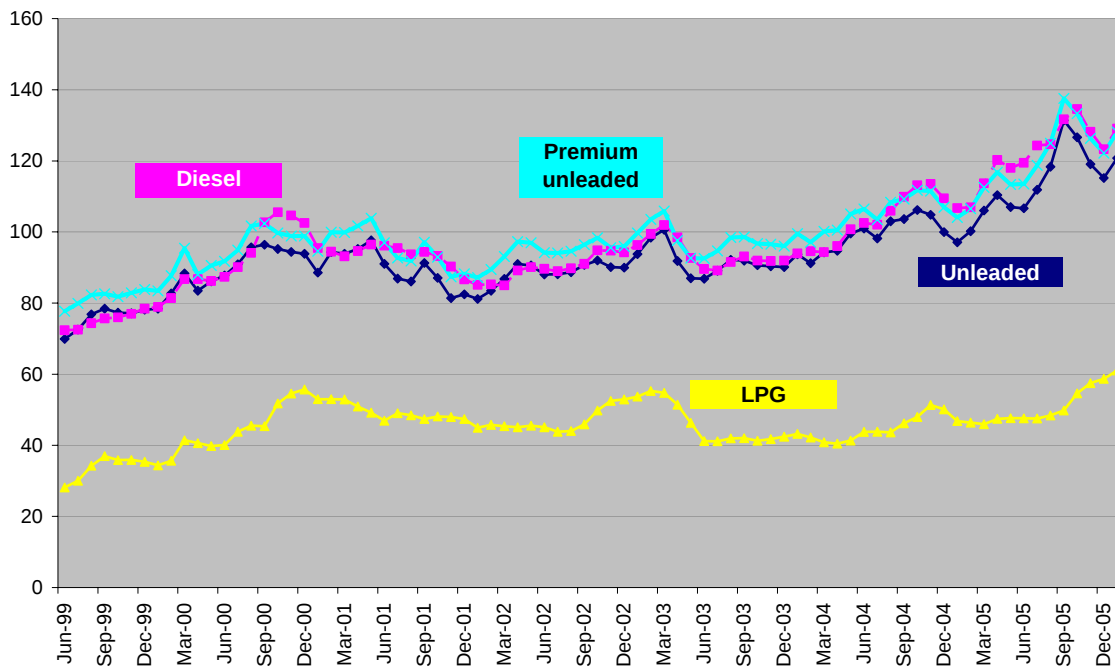
In Section 5, we will provide a brief summary of developments which are taking place in the automotive sector to develop motor vehicles which use alternative fuels.

Finally, in Section 6 we raise an issue peculiar to South Australia, namely recent fuel shortages and the closure of the Port Stanvac refinery.

2. Transport and energy

Oil prices began to rise sharply from around US\$20 in early 2002 to a peak of around US\$70 in September 2005 – the highest nominal level ever. They have fluctuated around the US\$60 mark since that time. The rising oil price has been mirrored in the price of petroleum-based transport fuels such as unleaded petrol, diesel and LPG (see Chart 1).

Chart 1: Monthly average capital city fuel prices (cpl)



Source: FuelTrac

According to the latest ABARE forecasts, global oil prices are expected to remain high in 2006 (averaging around \$60 per barrel in WTI terms) before a marginal reduction in 2007 (averaging \$57 a barrel). Towards the end of the projection

period, world oil prices, in 2006 dollar terms, are projected to average around \$39 a barrel in 2011.⁶

The increasing price of fuel and the fact that it has been sustained over a reasonably long period of time, has led to concerns being expressed about its economic and social impact, the long-term supply situation, the implications for global security, and the long-term effect on vital industries such as transport.

The transport sector accounts for 39 per cent of total Australian final energy consumption. Transport energy comprises road transport (79% of transport fuel consumption), air transport (13%), water transport (4%), rail transport (2%) and gas pipeline operation (2%). In terms of liquid fuels, including LPG, the transport sector accounts for 75 per cent of total use.⁷

Passenger cars and wagons have dominated road fuel consumption over the past 30 years, consistently using around 60 per cent of the sector's total.

According to ABARE, energy use in the transport sector is expected to grow by 1.9 per cent a year over the long-term. This contrasts with growth over the past 30 years of almost 5 per cent.

Australia spent \$15 billion on imported crude oil and refined petroleum products last year. In net terms we rely on imports for 17 per cent of overall consumption but by 2020, the Australian Bureau of Agricultural and Resource Economics estimates, the figure will rise to 46 per cent. Given Australia's abundant gas reserves and the fact that we are not entirely self sufficient in oil, we need to examine realistic options of having a greater proportion of our vehicle fleet use gas.

Labor's federal resources spokesman, Martin Ferguson commented in a CEDA address that Gas to Liquids (GTL) technology could open up liquid transport fuel markets in the Asia-Pacific region. He notes that the cost of the technology is increasingly competitive with crude oil refining because refining costs for cleaner fuels are rising and because GTL producers can target their product slate to produce diesel and other middle distillates, for which demand growth is highest, particularly in fast-growing economies like China and India.⁸

⁶ ABARE, *Australian Commodities*, Vol 13, No 1, March 2006

⁷ ABARE, *Energy in Australia*, 2005

⁸ CEDA address, 'The Asia-Pacific Partnership on Clean Development and Climate: Opportunities for Australia', 23 August 2005

2.1 Surveys of motorists and their response to high prices

ANOP Research Services has been regularly surveying motorists' attitudes and priorities on behalf of AAA since 1995. Four of the surveys – 1995, 1999, 2003 and 2004 – have been major studies. The most recent survey, in February 2005, had a more specific focus, but the results once again highlighted the personal importance which motorists attached to their car in their daily lives. On a seven point scale (where 1 represents extremely unimportant, 4 is mid-way and 7 represents extremely important), motorists rated the importance as 6.2 in 1995, 6.2 in 2000 and 6.1 in 2005. Clearly, trying to get motorists out of their cars as an option of reducing Australia's transport fuel demands is unrealistic.

Due to the incomplete nature of the public transport system in capital cities and its virtual non-existence in rural areas, Australians are very dependant on their cars and major price shocks can have a damaging impact.

Table 1: Perceived Solutions to Reducing Environmental Impact of Cars

Motorists were asked to nominate, in an open-ended question, realistic solutions for reducing the impact that cars have on the environment.			
THE MAIN SUGGESTIONS:	2005 TOTAL %	2005 Urban %	2005 Regional %
1. Develop cleaner, alternative fuels. Better fuels. Gas. LPG	34	35	31
2. Encourage public transport use. More reliable, cheaper public transport	33	35	28
3. Develop "alternative" cars. Electric cars. Solar cars. Hydrogen cars	27	26	28
4. Improve vehicle emissions. Emission controls. Cleaner engines	23	22	26
FOLLOWED BY:			
5. Encourage people to drive less	17	15	21
6. Reduce old cars on road	6	7	3
7. Restrict number of cars on road	4	4	6
Others: Use of ethanol (3%); Improve roads (3%)			
Unsure	10	10	11

Source: ANOP for AAA, Motorists' attitudes and priorities, March 2005

When motorists were asked to rate their level of concern about the effect of motor vehicles on the environment, the mean rating in 2005 was 5.2 – a moderate concern. When motorists were then asked to nominate in an open-

ended question, realistic solutions for reducing the impact of cars on the environment, the community's faith remains in new fuels and new types of cars – rather than in solutions that reduce car usage such as better public transport or encouraging people to drive less (see Table 1).

ANOP surveys have highlighted the concern which motorists have about petrol prices. Unfortunately, the 2005 survey was conducted just prior to the spike in oil prices (see Chart 1). Nonetheless, when motorists were asked to nominate, in an open-ended question, the most important issues or problems personally affecting them as a car driver, 16 per cent mentioned petrol prices.

More recent survey results on petrol prices are available from our Constituent member RAC in Western Australia. In a question in October 2005 on the importance of particular community issues, 75 per cent ranked the price of fuel as important and urgent. This issue was also regarded as *the* most important slightly ahead of unsafe drivers and the public health system in WA (both 73%).

In tracking of the importance of fuel prices on a monthly basis from September 2002, concerns increased sharply in response to two price spikes in April 2005 (when average metropolitan fuel prices reached \$1.08) and September 2005 (when average prices reached \$1.30).

When oil prices reached their peak of around \$70 per barrel in September last year, our Constituent RAA in South Australia launched a Sunday Mail/RAA petrol protest. The protest enabled motorists to voice their concern about extraordinarily high prices by signing a voucher and returning it to RAA. The organisation received over 10,000 vouchers from frustrated motorists.

3. Options for reducing fuel use

There is a number of options for reducing car use. As noted earlier, encouraging people to drive less is not favoured by motorists. Encouraging public transport use is certainly supported, but invariably support – at least in terms of usage - for public transport is conditional on it providing a similar level of service to the motor car. It needs to be reliable, cost effective and frequent. Public transport also needs to comprise a network which is accessible to as many users as possible. Unfortunately, these conditions are often not met. AAA supports the use of fuel taxation as a means of improving public transport provided it results in overall improvements to transport efficiency.

3.1 Fuel tax reform

At present, the Commonwealth relies heavily on fuel taxation as a source of revenue. Fuel tax is a very blunt form of road user charge. Serious consideration should be given to replacing fuel excise with a road user charge which includes an access charge and a usage charge. The latter would account for the costs associated with pavement wear and other externalities such as crash costs and pollution costs. A congestion charge could also be implemented where congestion exists. Such a charging approach will result in more efficient use of motor vehicles and fuel used.

A pricing regime with competitive price neutrality between road and rail might result in more freight using the rail network and lead to less congestion – and fuel use – in major capital cities.

As new technologies are developed and become viable alternatives to fossil fuels, such as fuel cell powered vehicles, there will be significant impacts, not only on the petroleum and motor vehicle industries, but also on the tax base of governments around the world that rely on petroleum based taxation for funding infrastructure investment and other priorities. The issue of taxes based on energy content is discussed briefly in Section 4.

3.2 Intelligent transport systems

The introduction of Intelligent Transport Systems has the potential to improve transport efficiency and reduce fuel use. We will not go into detail on this subject here, but ITS includes vehicle navigation systems (which can identify the shortest route), provision of in-vehicle parking information (to reduce time spent driving around looking for parking spaces), incident detection (to reduce delays caused by incidents as drivers can choose an alternative route), electronic tags to charge for use of roads (to ensure free flow of traffic, rather than having to stop at toll booths) and real-time public transport information (to allow motorists greater choice of how best to undertake their journey).

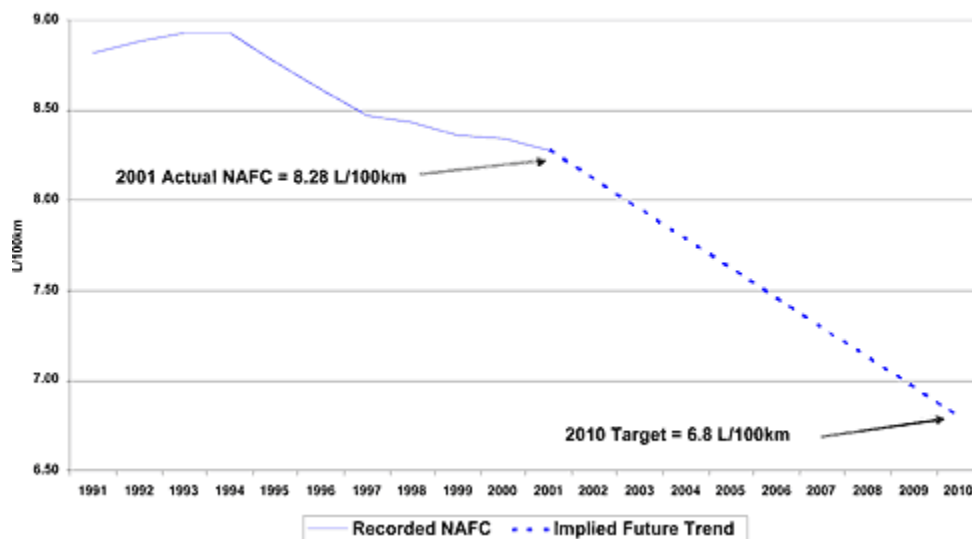
3.3 Fuel efficiency

Improvements in the fuel efficiency of the motor vehicle fleet have the potential to reduce fuel usage. From January 2001, passenger vehicles which operate on petrol, diesel and LPG must have a fuel consumption label applied to their windscreen at the point of sale. The labeling is designed to have consumers make an informed choice about the environmental performance of their prospective purchase. AAA was involved in a working group to design the label and supported its introduction.

The Federal Chamber of Automotive Industries (FCAI) has introduced a Voluntary Code of Practice for reducing the fuel consumption of new light vehicles. The Code, introduced in April 2003 commits the industry to a progressive reduction in national average fleet consumption of passenger cars to a target of 6.8 litres/100km by 2010. This represents a reduction of 18 per cent over the decade (see Chart 2).

Achievement of this target will depend on a range of factors including the implementation of existing technology and the quality and availability of fuel to meet advanced engine and emission technologies. New engineering technologies are needed to ensure that stringent emission standards being set by the UNECE and adopted in Australia, are met. These standards are being progressively introduced in Australia. The Federal government has introduced incentives to encourage the early supply of low sulphur fuels. AAA has been involved in a Commonwealth government Committee dealing with the associated issues of fuel quality and standards.

Chart 2: National Average Fuel Consumption (NAFC) for New Passenger Cars



Source: FCAI website

Although the Code commits the FCAI member companies to report annually on progress with the target, the figures are not readily available and so it is difficult to ascertain what improvements have taken place since 2003. This is due, in part, to the fact that the test which was used to assess fuel consumption (AS2877) was replaced in 2004 with the ECE R 101 to harmonise with Europe. The European test results in higher figures. The target is also being revised to reflect carbon dioxide emissions and to incorporate vehicles other than those using petrol. This approach is to ensure that there is international consistency.

In any event, there is likely to have been a small improvement in the NAFC due in part, to the falling sales of large cars and rise in sales of small cars. SUVs have not been included in NAFC in past, so their increasing sales over the past few years further complicate the picture.

The Government has also set a fuel consumption target for its fleet.⁹ The environmental strategy for the Government's vehicle fleet proposed that by the end of 2005, 28 per cent of the fleet will score greater than 10 on the Green Vehicles Guide (GVG).¹⁰ It is our understanding that this target has not been met.

AAA considers that the revised FCAI and Commonwealth targets and performance against these targets should be published during 2006.

3.4 Fuel efficient driving

Clubs play a role in educating motorists about the impact that maintenance of the vehicle and the way it is driven has on fuel consumption. A range of tips for saving fuel are handed out.

4. Alternative fuels, including biofuels

A range of technologies have been developed relating to both the powertrain system being used (hybrid vehicles) as well as the fuel or energy source for these vehicles.

In terms of alternative energy sources (fuels) there are a range of alternatives currently being developed around the world that may eventuate as viable transport fuels for the future.

Alternative liquid fuels produced from natural gas or coal includes diesel, methanol, dimethyl ether or naphtha. Fuels produced from gas or coal are essentially free of sulphur and particulates with the resulting CO₂ from these refining processes being able to be sequestered making the GHG emission from this energy source attractive.

Compressed natural gas is promoted as an alternative given its cleanliness, however recent studies have found that it does not offer significant GHG emission reductions over standard diesel, and also suffers from low energy efficiency.

⁹ See Issue 1/05 of the Fleet Monitoring Body (FMB) of the Department of Finance
Hhttp://www.finance.gov.au/fleetmonitoringbody/fleet_monitoring_body_advice_u.htmlH

¹⁰ Details of the GVG is available at Hwww.greenvehicleguide.gov.auH The guide provides comparative environmental ratings for all vehicles under 3.5 GVM sold in Australia. Scores are based on a greenhouse rating and an air pollution rating.

Hydrogen is seen as a viable future energy source from a GHG perspective, with many of the major energy companies (BP, Shell) and well as vehicle manufacturers (BMW, GM) making a considerable investment in developing hydrogen as a future energy source. For hydrogen to become a realistic option, a clean and economic production process needs to be developed as well as the technology to handle and store hydrogen onboard vehicles is required.

The main alternative fuels currently being used in Australia are LPG, natural gas and biofuels such as ethanol and biodiesel. LPG represents about 6 per cent of fuel requirements by volume or about 5 per cent by energy content.

As reported in *Securing Australia's Energy Future*, the Government announced in December 2003 a number of measures to support the use and production of alternative fuels in Australia. These measures include ensuring that alternative fuels were effectively excise free until July 2011 when excise rates would be phased in over five even annual steps. Excise rates for all fuels will be based on energy content and discounted by 50 per cent for alternative fuels. The current excise rate on petrol and diesel of 38.143 cents/litre will be retained.

Other measures include a \$1000 grant for LPG vehicles new from 1 July 2011 and a \$37.7 million capital grant to support new biofuels production capacity.

Assistance to alternative fuels involves both budgetary and economic costs. The latter arise because government assistance changes the relativities between the activity that is assisted and other activities that add value to the economy.

The excise concession on LPG is currently estimated to cost \$840 million a year in foregone revenue. ABARE estimates government assistance to the biofuels industry could cost the budget in foregone excise \$118 million per annum at 2009-10. Costs to the economy are estimated at around \$90 million per annum at 2009-10.

In a recent response to a Question on Notice¹¹, it was revealed that in the eighteen months to December 2005, over \$14 million had been paid expended on the ethanol production subsidy, with over \$12 million being paid to Manildra which produces ethanol from wheat starch.

Biofuels have been touted as a means of reducing our reliance on oil. There were further arguments about how production of ethanol could assist certain segments of the agricultural sector - although the feedlot sector would have been disadvantaged through having to pay higher prices for grain bid up by subsidized ethanol producers. AAA chose not to enter the economic debate, but rather concentrated its opinions on the effects of ethanol on motorists, our constituency.

¹¹ Question No. 1485, 18 January 2006, response on 28 February 2006

AAA is not opposed to biofuels generally and, in particular, the use of ethanol blends. We believed that motorists should be able to choose what fuel to buy and argue that if petrol/ethanol blends were to be introduced into the market, four conditions need to be met:

1. The blend should not contain more than 10% ethanol – this view was based on advice from the motor vehicle manufacturers, that anything more than 10% could harm some engines;
2. There should be labeling at point of sale – AAA believed that it was important to inform motorists what they were buying and that they should expect a slight increase in fuel consumption because of the lower energy content of E10;
3. 10% should not be mandated – consumers should be given the choice of blends and non-blends; it is also worth noting that a policy of mandating E10 would require about 1.65 billion litres of ethanol per annum to be added to fuel. This represents an increase of 1.3 billion over the current Government target of 350 ML of biofuels by 2010; and
4. There should be no increase in motoring costs – our view is that since E10 results in higher fuel consumption, there should be a price advantage of around 4.5 per cent to offset this.

Following the release of the Biofuels Taskforce report in August 2005, AAA has maintained its position in relation to the 4 points noted above. Indeed these points were made in a submission to the Taskforce.¹²

We note that in January the Western Australian government announced a Biofuels Taskforce that will look at developing viable renewable fuels in WA. It is expected to report to Parliament with 12 months.

We also note that the Federal Government softened its requirements for retail labeling of ethanol on 31 December 2005 in response to the recommendations of the Federal Biofuels Taskforce. The initial label, introduced in March 2004, provided information that the blend contained up to 10% ethanol, was suitable for most post-1986 vehicles and may cause a small increase in fuel consumption. The amended label now only requires information indicating that it 'contains x% ethanol' or 'contains up to x% ethanol'.

AAA does not support the amended label. Although we would accept a degree of flexibility in the way fuel companies provide information about ethanol blends at the pump, we believe that the information provided on the initial label should still be presented in some form.

¹² [Hhttp://www.aaa.asn.au/documents/submissions%2F2005%2FBiofuels.pdf](http://www.aaa.asn.au/documents/submissions%2F2005%2FBiofuels.pdf)H

5. Alternative fuelled vehicles

Motor vehicle manufacturers worldwide are researching new technologies for powering motor vehicles. The research is being developed to cut demand for petroleum based fuel and reduce greenhouse emissions and to find engineering technologies which can use transport fuels from sources other than oil. Various options are being pursued, ranging from hybrids with gasoline and diesel to fuel cell vehicles using hydrogen sourced from natural gas.

Hydrogen is a source of energy, but from a greenhouse point of view, we need to ensure that emissions are not simply transferred from the car tail pipe to the electricity power station.

The introduction of new vehicle technology into the fleet is not simply a matter of technical feasibility. Cost to the consumer is an important consideration. And so too is supply infrastructure of new fuels. The Government should be developing a strategy to ensure hydrogen for transport is available from 2010 as vehicle manufacturers have stated that this will be when fuel cell/hydrogen vehicles will become available.

Australia has abundant reserves of gas. The recent rapid rise in the price of LPG is discouraging its use and AAA considers that the ACCC should investigate the cause of this and whether any price gouging is occurring at points in the marketing chain.

Alternative fuelled vehicles are available in Australia. These include the LPG fuelled Ford Falcon, Toyota Prius hybrid and Honda Civic hybrid. According to Toyota, the Prius doesn't even begin to break even on greenhouse gas emissions until it has been driven around 20,000km. This is because extracting and manufacturing the raw materials to make a Prius consumes more energy than a conventional car. The extra energy required means more carbon dioxide is emitted to make a Prius than a conventional technology car.

Sales of the Toyota Prius have been increasing steadily since its introduction to the market in Australia in 2001. Sales in that year were 137, increasing to 1094 in 2004 and 1423 in 2005.¹³ This represents 1.5 per cent of the total *light* car sales for 2005 and 0.23 per cent of total passenger motor vehicle sales.

Sales of LPG private passenger vehicles numbered only 254 in 2005 (compared to over 320,000 petrol vehicles and 5,300 diesel vehicles in this category). However, sales of non-private passenger vehicles – presumably mainly taxis - were over 5,300 in 2005 (compared to 270,000 petrol vehicles and 1,800 diesel vehicles in this sales category).¹⁴

¹³ Source: Australian Automotive Intelligence, Report, February 2006, page 25

¹⁴ VFACTS

CSIRO is working with Holden to develop the next generation of hybrid powered vehicles. Collaboration with Holden commenced in a significant way with the demonstration of the fuel efficient ECOMmodore in 2000. This was the world's first family sized rear wheel drive car with the performance of a conventional V6 with half the fuel use.¹⁵

Government provides substantial assistance to car manufacturers - subsidies of \$7.2 billion have been provided over the past 15 years. The Government will be providing a further \$4.2 billion through the Automotive Competitive and Investment Scheme (ACIS) as part of the Government's post-2005 industry assistance package. The scheme offers up to \$150 million in R&D assistance over the period 2006-2010. Some of the projects chosen in the so-called Stage 2 of the scheme announced in April 2005 include those with an environmental focus such as fuel economy and emissions improvement.¹⁶

Given the substantial funding provided by Government (and motorists), it would be useful if the Commonwealth Department responsible for the scheme were able to provide an Annual Report on outcomes achieved with the research funding.

6. Other issues

There are two specific issues we would like to raise which are peculiar to South Australia which we would like to bring to the attention of the Committee. One relates to recent fuel supply shortages in that State. The other is the closure of Port Stanvac refinery and storage facility.

In November last year, RAA was informed by the Office of the Technical Regulator (SA Government agency which monitors fuel supplies in SA) that some service stations in Adelaide had run out of premium unleaded fuel (PULP). Further investigation identified that due to a shutdown of the BP refinery in Perth, PULP was in short supply in Adelaide and would remain this way for up to 7 days. A week later, RAA was advised that the fuel storage facility at Birkenhead was running low on petrol supplies due to shipping delays, with a vessel arriving just in time to prevent widespread fuel outages. RAA understands that only a handful of bowlers ran out of petrol.

There have also been isolated diesel shortages across South Australia due to high demand for fuel during the harvest period.

RAA believes that the Birkenhead fuel storage facility has the ability to meet the fuel requirements of South Australia, but at present the facility is not being used to its maximum workable capacity, with fuels being stocked on a 5-10 day supply

¹⁵ [Hhttp://www.tip.csiro.au/IMP/EnergySustain/flagship/H](http://www.tip.csiro.au/IMP/EnergySustain/flagship/H)

¹⁶ Media Release: Minister for Industry, Tourism & Resources, 18 April 2005

basis. Given recent incidents, the operators of the Birkenhead facilities must operate in the best interest of the State, by maintaining a minimum level of fuel in storage at any one time.

As a member of the International Energy Agency, (IEA), Australia must maintain 90 days of reserve fuel at any one time. While this quantity is required Australia-wide, South Australia could barely operate for more than 10 days without fuel deliveries.

The State Government established the Liquid Fuel Stocks taskforce (LFSTF) in December 2003 to look at fuel storage arrangements in South Australia. The findings do not appear to have been released.

A related issue of fuel supply and storage is the closure of the Port Stanvac refinery and fuel storage facilities. A parliamentary was established to examine, inter alia, the impact of the 2003 closure on the reliability and pricing of petrol, diesel and LPG. Analysis of pricing by RAA show that motorists pay at most a 1cpl premium on petrol since the closure.