

AUSTRALIAN BIOFUELS ASSOCIATION

ABN 55 157 789 157

The Secretary
Senate Economics Legislation Committee
Parliament House
Canberra ACT 2600

Dear Committee Members,

Energy Grants (Cleaner Fuels) Scheme Bill 2003 Energy Grants (Cleaner Fuels) Scheme (Consequential Amendments) Bill 2003

Overview:

In the 2003/04 Budget significant changes were introduced to the traditional approach adopted by Government over the past 22 years towards fuel excise arrangement for alternative fossil fuels such as LPG and CNG, and renewable fuels such as ethanol and biodiesel.

As justification for moving from the use of fuel excise as a dual purpose policy instrument (a major source of revenue from an excise tax on transport fuels, and a revenue base for dealing with the externalities associated with fuel/transport use) to a singular tax revenue collection focus, Treasury¹ put forward a number of claims:

- These reasons no longer provide a sound basis for investments, particularly in alternative fuels where the increasing cost of exemptions cannot be justified on environmental grounds.
- Changes to the current excise system will promote long-term sustainability and a move to a neutral tax treatment between competing fuels.
- The reforms will support the production of cleaner fuels and provide a more certain framework for investment in the fuels sector.
- Final excise rates will have regard to the energy content of fuels.

A Sound Basis for Investment

The LPG and CNG fuel industry have demonstrated that exemption from fuel excise has provided a sound basis for investment in alternative fuels, and offer renewable fuels (ethanol and biodiesel) a sound platform for future expansion on a national level.

No details have been provided in support of Government claims that the proposed changes will provide a sound basis for future investment in alternative fuels. Until these are available it is not possible to assess the soundness of Treasury claims.

Increasing Cost of Exemptions cannot be Justified on Environmental Grounds

All alternative fuels share the advantage of reducing the emission of uncombusted hydrocarbon and toxic aromatic components of petrol and diesel fuels that contribute to air pollution and pose a direct threat to public health. The petroleum industry accepts no

¹ Budget Paper (2003-04), Pages 1-22 to 1-23.

responsibility for the public cost impacts of their fuels on the environment, and associated health costs, thus forcing this cost burden to be carried by the Australian taxpayer and alternative fuels.

Treasury ignores the additional roles played by biofuels in terms of future national energy security, adding value to existing agricultural crops, and future economic and jobs growth in rural Australian communities

Biofuels such as ethanol and biodiesel have the unique advantage of being renewable fuels, and are able to replicate these benefits indefinitely, whereas fossil fuels can only be used once and thus do not represent a sustainable future resource. Being renewable means that produced sustainably, biofuels represent an inexhaustible future domestic supply of cleaner burning transport fuels.

100 percent biodiesel reduces the life cycle consumption of diesel by 95%, and a 20% biodiesel blend by 19%. In the U.S. the growing of dedicated corn crops to produce ethanol has been shown to produce 34% more energy than it takes to produce it. In Australia, industry life cycle analysis of ethanol production from wheat and sugarcane byproducts produces a net greenhouse benefit of between 44% to 60%.

A desktop Comparison of Transport Fuels conducted by CSIRO and RMIT in 2001, initially found neutral to negative greenhouse benefits associated with a 10% ethanol blend. This was based on a U.S. PhD thesis using a theoretical American fuel used in a theoretical car, rather than available Australian E10 trial data. In response to a peer review of its 2001 study, CSIRO/RMIT acknowledged to the Queensland Environmental Protection Agency (see attached letter from QLD Minister for Environment refers) in July 2003 that it should have used available Australian trial data in preference to the U.S. thesis, and that "it is expected that detailed LCA undertaken by the industries in question will be superior to desktop studies undertaken from without." This provided, in the worst case, a net greenhouse benefit of 44.4% (4.4% for a 10% ethanol blend) and a best-case result of close to 60% net benefit over petrol.

Long-term Sustainability and Neutral Tax Treatment between Competing Fuels

No details are provided in support of the claim that the changes will promote long-term sustainability, either in terms of future energy security or environmental impacts. What is certain is that Australia's domestic oil reserves are not sustainable, whereas renewable fuels have the proven capacity to meet this policy objective, as well as delivering environmental and substantial economic and jobs benefits for rural Australian communities.

The claimed benefits of "neutral tax treatment between competing fuels" are not explained. This is particularly difficult to demonstrated as the cost of petroleum fuels are set by oil and gas cartels, not the open market, and the oil industry accepts no responsibility of the externality impact of their products on the environment and human health.

Production of Cleaner Fuels and Certainty in the fuels Sector

Cleaner fuel standards for petrol and diesel fuels are long overdue in Australia, and are to be welcomed. The claim that these improvements in environmental performance "reduce the gap between these and alternative fuels," must be qualified.

- There is no evidence that this measure will move petrol and diesel to the status of achieving a net greenhouse benefit, or evidence that these measures will reduce the health threat of toxic components of petrol and diesel (e.g. fine and ultra-fine particles) to the public when projected increases in fuel use is taken into account in the future.

Fuel Excise Based on Energy Content of Fuels

Treasury has proposed moving fuel excise to an energy content basis. This is to be achieved by adopting a calorific value for each fuel based on British thermal unit or megajules per litre. We are not aware of any other country adopting this approach, as it is a theoretical measure only that does not reflect the “real world” performance of fuels – particularly the performance of petrol and diesel in the combustion chamber of automotive engines.

The theoretical calorific energy value of a litre of petrol and diesel are never fully delivered in automotive engines. This is because the potential energy in these fuels is never fully combusted, and delivered in engines. Those components of petrol and diesel that are not combusted, and converted into energy are expelled as exhaust tailpipe emissions that contribute to air pollution and pose a risk to human health.

Although biofuels have lower theoretical energy content than petrol due to oxygen content, when this same oxygen is blended with petrol or diesel it stimulates a more efficient burn of petrol and diesel in the combustion chamber of engines. In this way they help deliver more of the potential energy of petrol and diesel to the vehicles in which they are used and, in doing so, reducing harmful tailpipe exhaust emission.

All alternative fuels, including biofuels, have lower energy content than petrol, and this does influence vehicle fuel economy. But this is less than that projected by theoretical energy value, and does not take account of the beneficial oxygenate impact of biofuels on petrol and diesel.

There are also other recognised factors, including vehicle design, that influence fuel economy. These clearly show that the energy content of fuels is just one of a number of factors that need to be accounted for in measuring the performance of vehicles. Some of these factors are set out below.

Figure 2: Other Factors that Influence Fuel Economy

Factor	Average	Maximum
7% road grade	-1.9%	-25.0%
Petrol refinery energy variations	-2.0%	-3.0%
32kph headwind	-2.3%	-6.0%
Tyre pressure reduced to 15 psi from 26 psi	-3.3%	
Temperature drop from 25°C to -7°C	-5.3%	-13%
43 kph verses 32kph stop start driving	-10.6%	-15.0%
Aggressive verses easy acceleration	-11.8%	-20.0%
Air Conditioning (hot weather)	-21.0%	

Sources: Changes in Gasoline III – The Auto Technician’s Gasoline Quality Guide, DAI (U.S.A.) 1996
Chevron: Fuel Economy of Gasoline Vehicles – Technical Bulletin

Treasury claims that improvements in fuel quality standards, and new vehicles technologies reduce the environmental performance gap between petrol, diesel, and alternative fuels remains open to question. While they may reduce some risk, they fail to address the health risks of new vehicle technologies producing more fine and ultra-fine particles. Such changes have no impact on greenhouse gas emissions.

Any new energy based scheme must recognise the environmental and other national benefits delivered by alternative fuels. Although substantial, attributing dollar and cents value to these benefits can be a complex task – but no more so than the complexities associated with dealing with theoretical energy values. Some of the complexities of the former are reflected in the Table below.

Ethanol: Flow of Revenue From/To Treasury from Producer/Excise Subsidy

Factor	Note	Cents Per Litre Existing Excise Rate ^a
Excise/Subsidy Expenditure Forgone	1	(38.143)
Direct Employment in Distilleries	2	18.00
Indirect Jobs in wider community	3	10.00
Renewable Fuels Energy Balance	4	?
Octane Benefit to Oil Refinery	5	4.00
Reduced Air Pollution /Health Costs	6	4.00 (min)
Greenhouse Gas Abatement		5.00
Balance of Payment Savings		?
Energy Security		?
Net Return to Government		41.00 (?)

Notes:

1. The Federal Government announced in the 2003–04 budget that ethanol will have excise applied to it in proportion to the energy content of the fuel.
 - a. Revenue flow calculated on the current rate of excise (38.143 ¢ per litre).
2. Net tax flow to the Commonwealth for each litre of ethanol produced from the grains to ethanol model. The Balance of Revenues associated with Fuel Excise and Ethanol; Ernst and Young 2002.
3. Centre for Agricultural and Regional Economics (CARE) 2002.
4. U.S. Department of Agriculture, Energy Balance of Corn Ethanol, An Update, Sept. 2002
5. Ethanol adds 4 octane numbers per litre to petrol with a minimum value of 1 cent per number.
6. Estimates range from \$7 billion (evidence given to the Fuel Tax Enquiry (Australian Institute) to \$4.5 billion Australian Institute of Health and Welfare 1993-94.

The potential impact, positive and negative, of moving quickly to an energy based system for petrol, diesel and alternative fuels is enormous, and should be approached with deliberation and caution. This would suggest a highly interactive engagement with the industries involved to evaluate the risks and benefits before moving forward. If not irreparable damage could be done to the LPG industry, CNG, ethanol and biodiesel.

Fuel Labelling at the Point of Sale

Much has been claimed and said with respect to the labelling of ethanol at the point of sale. This has largely been driven by claims of ethanol related engine damage in vehicles that have either been fabricated, unsubstantiated or both.

During the debate on ethanol fuel content use in vehicles, all parties accepted that a 10% ethanol blend was a proven worldwide as a safe and reliable fuel that was warranted for use in new vehicles, and almost all of the Australian vehicle fleet.

Despite this there remains pressure from vested interest groups for the selective and discriminatory labelling of ethanol on fuel pumps. The United States over the past 22 years has adopted the same minimalist approach to the labelling of E10 at the point of sale as it does towards petrol generally. California does not require the labelling of ethanol, while other States such as Nebraska use a simple E10 label at the point of sale (photos attached).

The biofuels industry supports the use of fuel industry standard labelling for petrol, diesel, ethanol and biodiesel at the point of sale, and holds the strong view that if labelling of the contents of food is considered in the interest of the consumer, the contents of all transport fuels should be subject to mandatory labelling under the Act – not an issue of discretionary power by the Minister alone under the ACT. Equally important is that any labelling be based on factual information, not emotional factors based on unsubstantiated claims. Unfortunately this accurately describes the position currently adopted by the Victorian Government.

In the current circumstances labelling of ethanol at a time when the major oil companies are maintaining their national anti-competitor NO ETHANOL campaign would be unfair and highly discriminatory. Common sense, and facts would support adoption of the American practice for labelling E10.

If discriminatory labelling is to proceed, identical labelling should also be required for the sale of all petrol fuel as the cautionary wording on the use of the fuels in non-automotive applications is equally applicable to both petrol fuels, and a 10% ethanol blend with petrol.

E10 and Your Car

A 10% ethanol blend has been distributed and used throughout the entire American vehicle fleet for over 20 years, and has been used at higher blend rates in all fuels used in Brazil for a similar period. In the State of California alone (see California Energy Commission letter of 1 October 2003), which has over 22 million registered vehicles operating on its roads, over 65% of all vehicle models operate on ethanol blend fuel, and this will increase to 80% of all vehicles by the end of 2003 (Brief on Ethanol in California refers). Across America some 10 billion litres of ethanol will be blended with petrol in 2003, and ethanol use in the U.S. could reach 20 billion litres per year by 2012. A copy of a Mobil USA brochure on E10 is attached.

All vehicles produced in America, or imported into the U.S. warrant the use of a 10% ethanol blend as a safe and reliable fuel, and since 1992 a large section of vehicles in NSW have demonstrated that Australian manufactured vehicles, and vehicles imported into Australia also operate efficiently on E10. The safety and efficiency of E10 in the Australian vehicle fleet was also demonstrated in Commonwealth funded Australian trials in NSW in 1997.98 of a 10% ethanol blend in 60 pre 1986 and post 1986 vehicles representative of the Australian fleet.

The 1998 Australian E10 trial report (ERDC Project No. 2511) found that there was no material compatibility issues associated with E10 in the Australian vehicle fleet, and no unusual engine wear to that normally expected. The report (Summary attached) concluded:

“A 10% v/v anhydrous ethanol/petrol blend as used in NSW, Australia, and internationally requires no modifications to vehicles in service now and in the foreseeable future...”

While all the test vehicles were of domestic manufacture, confirmation was received from the Federated Chamber of Automotive Manufacturers (FCAI) **“that all imported vehicles are compatible with 10% v/v ethanol/petrol blend.”**

Recently there have been exaggerated and fabricated claims that millions of Australian vehicles cannot operate on E10. These claims are at complete odds with established trial data on the use of E10 over the past 20 years in the United States, and over the past 10 years in Australia.

These unsubstantiated claims have caused unnecessary anxiety amongst Australian motorists. Claims have been made that support for these allegations are contained in a Secret List, but this has also been demonstrated to be a fabrication.

It is a fact that an initial report compiled by the FCAI on the current position of automobile manufacturers and importers contained advice that was inconsistent with that given in 1997/98, and that the FCAI proposed going back to their members to seek clarification of those inconsistencies that stood at odds with the positions the same companies supported in the United States, recently in New Zealand, and during the 1997/98 Australian trials of E10 in the Australian vehicle fleet. A copy of a Mobil USA brochure on E10 is also attached.

It is a factually undisputed that extensive Government funded and supported trials of E10 in the American and Australian vehicle fleets have convincingly demonstrated that a 10% ethanol blend with petrol is a reliable fuel for use in vehicles in service now and in the foreseeable future. Those making claims otherwise have a responsibility to the public to provide factual trial data that demonstrates the substance of their claims.

Comments on the Energy Grants (Cleaner Fuels) Scheme Bill 2003 and the Energy Grants (Cleaner Fuels) Scheme (Consequential Amendments) Bill 2003

Imports of Biodiesel:

The current Bill makes provision (Part 2-Entitlements to cleaner fuel grants – Section 5 of Energy grants (Cleaner Fuels) Scheme Bill 2003) for the entitlement of cleaner fuel grants to biodiesel imported into Australia.

This is inconsistent with the approach adopted towards biodiesel's biofuels partner fuel – ethanol. No rationale is provided for treating biodiesel differently to ethanol.

It has been accepted that the import of highly subsidised ethanol from Brazil represents a threat to the establishment of the foundations of a domestic biofuels industry in Australia. In this regards, ethanol has been provided with a producer

subsidy, and a grace period of five (5) years before imports of ethanol will be eligible for a producer subsidy. In the meantime should Brazil want to invest in the Australian ethanol industry it will also be eligible for the producer subsidy.

The same risks that apply to the ethanol industry from imports, apply equally to biodiesel during its foundation forming years in Australia.

No reasons have been given as to the benefits of rewarding biodiesel imports with access to cleaner fuel grants at the expense of jobs in rural Australia associated with the development of a domestic biofuels industry. Other factors include:

- Exporting the benefit of Australian fuel excise overseas (a situation the Australian taxpayer will inevitably find unacceptable).
- Subsidising jobs creation overseas rather than creating taxpaying jobs in Australia.
- Exporting the benefits of any future carbon credit scheme under a Kyoto Agreement overseas.

It is recommended:

That provision for entitlement/payment of cleaner fuel grants for imported biodiesel be deferred for five (5) years, thus creating common treatment for biofuels (biodiesel and ethanol).

Schedule 2 – Amendment of other Acts –Excise act of 1901

Conditions and duration of licences – 2.9

Amend the final sentence of 2.9 to read:

Where the Collector initiates the amendment of a licence a written notice specifying the legal and other reason supporting such action must be given to the licence holder and the Collector must be satisfied that the amendment is necessary to protect the revenue or ensure compliance with the Excise act 1901.

We look forward to addressing this issues before the Committee.

Yours sincerely,



Bob Gordon
Executive Director

7 October 2003