(Biofuels Research & Industry Development)

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Submission – Issues brief

To

Senate Select Committee on Climate Change

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Summary Brief

Renewable Fuels Australia welcomes and supports the commitment of the Australian Government to addressing climate change in Australia and on a global scale, and the development of a transparent process capable of securing these goals.

The CPRS

The Garnaut Report proposed a model Government Carbon Pollution Reduction Scheme (CPRS) that recommended a reduction in CO_2 emissions by 10 % from 2000 levels by 2020, and to 80% by 2050. The Government has set a target of 5% by 2020 and 60% by 2050.

The Government's target has led to intense debate in the Senate, and the public domain, and the establishment of a Select Committee on Climate Change to review perceived flaws that have developed into opposition to the passage of the CPRS Bill in the Senate.

Professor Garnaut had ruled out compensation for emissions intensive industries and urged tight controls over free permit allocations. During recent Senate hearings he has indicated there are things that could be done to reduce current compromise in favour of major polluters that, to an extent, could still make the CPRS worthwhile.

A disproportionate focus of the Government has been on comforting major polluters during the transition into active climate change activities. Big polluters are also major sources of Government revenue. The success of major polluters in acquiring free carbon permits by persuasion, lobbying, or threat has severely undermined public and the renewable energy sector confidence in the viability of the CPRS as it now stands.

Of concern is that the CPRS could allow major polluters such as electricity generators and LNG to draw revenues from both free credits, and by rises in service costs to industry and the public.

In adopting this approach the Government has created a defensive Australian CPRS, with little to no serious attention given to early and active deployment in the transport sector of renewable carbon reduction technologies.

When compared to the U.S., Europe and China, Australia's economic base would be rated narrow, with a relatively small number of large corporations exercising strong influence. With respect to climate change this was always going to pose risk to genuine change, and reflections of this are apparent in the reluctance in the CPRS to early going forward strategies such as opening up the Australian transport fuel market for both climate change and the transition from oil.

This may also, in part, explain the determined reluctance of both Treasury and Garnaut to acknowledge that the historic and unavoidable transition from global dependence on oil, and oil polymers, will be an inevitable fellow traveller of climate change between 2010 and 2030 to 2050.

- These challenges have now been joined by a global financial crisis. Each, in their own way, pose an individual Australian and Global threat that will inevitably impact on the other.

Australia's success in developing and finding markets for its abundant minerals, gaseous fuels and agricultural resources after World War II and the Korean War have developed powerful relationships between big industry, government entities and officials in these spheres. In Government/Industry terms, these nation post-war endeavours were a great success, and clearly in the public interest.

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Today, the major beneficiaries of this era must also carry a level of responsibility for the externality impacts of some of their activities on public and environmental domains and must be subject to adjustment and change in the interest of all future generations.

The issue of excessive comfort credits has always carried risks for the CPRS, as major polluting industries that resist, or are incapable of achieving sustainability can only survive by stopping, or delaying technology change, and can only put Australia on a fast track to failure.

The intention of comfort credits was worthy. However, the focus and determination of the big polluters on securing the benefits of free carbon credits for their shareholders has been seen by the public as overstepping the mark of public benefit.

Many see this as a systemic problem associated with enduring government officials and governing entities, and entrenched traditional industries during cycles of change - especially change of unusual proportions. This should be the centre of serious focus during any review of the CPRS.

Genuine Change

If a CPRS is to lead a successful process of "genuine change" it will have to initially lean heavily on proven, enhanced, and new technologies, together with investment in new technologies and sustainable renewable industries that stimulate new economic growth and employment. This should be a primary target of stimulation by free green carbon credits.

Aggressive and early deployment of proven and emerging carbon reduction fuel transport technologies has to be a vital part of any Australian global climate change scheme.

In the transport energy sector, biofuels have already demonstrated significant net carbon reduction capabilities, but have only been able to secure "neutral" status under the present CPRS.

The advantages of rewarding early movers of new industry development were acknowledged in the Garnaut Report, but both Garnaut and the Green Paper failed to seek, adapt, or engage the power and capability of proven alternative fuel technologies to make an early start in reducing transport carbon pollution emissions in Australia.

The potential exhaustion of Australia's domestic oil reserves within 7 to 8 years and our growing dependence on imported oil pose yet untended challenges. Protecting the fuel market from including the active development and use of renewable and gaseous alternative fuels as transition fuels from oil dependence is not in the interest in promoting genuine future transport energy security and climate change.

- The single exception in addressing both climate change and future fuel energy security is the regulated volumetric use of 10% ethanol and 5% biodiesel content in petrol and diesel by 2011 by the New South Wales Government,

Australia has the capability to develop a range of cleaner burning alternative transition fuel options (LPG; CNG/LNG, NG, Ethanol, Biodiesel), and offer lower fuel prices options to consumers at the fuel pump. Biofuels are also compatible with petroleum fuel infrastructure.

- With the exception of Australia, most countries (e.g. U.S., European Union, Brazil and Central and South America, Japan, China, India, etc) openly recognise that biofuels will play an important role in the transition from oil.

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- A recent International Energy Agency (IEA) Report[1] supported 1st and 2nd Generation Biofuels supported biofuels as part of a comprehensive strategy to reduce CO_2 emissions.

- The majority of OECD countries have undertaken active biofuels programs with the aim of:
  - Energy supply security.
  - Reduction of oil imports.
  - Reductions in greenhouse gas (GHG) emissions.
  - Agricultural industries (e.g. food production) and rural community development.

Biofuels production capacity in Australia currently exceeds 2.86% of transport fuel use (36 billion litres), with gaseous fuels such as LPG) approaching 5%. This represents a current national alternative fuels capability of 8%.

- A national transition fuel target in excess of 25% to 35% in the form of cleaner burning alternative transition fuels is achievable by 2020 in Australia, and 50% to 60% by 2030.

Depending on the condition of the vehicle, LPG[2] can produce 10% less GHG emissions than petrol, along with high reductions in tailpipe emission of toxic and carcinogen-carrying particulate matter (PM) from petrol and diesel-driven vehicles.

Biofuels remain the most significant source for carbon emission reduction in the Australian and global transport sector.

Based on current industry, CSIRO[3], and U.S. Government Laboratory emissions data[4] the CO_2 reduction capacity of ethanol and biodiesel in relation to petrol and diesel range from 60% to 87% on a litre per litre basis. 2nd Generation biofuel technologies are expected to exceed over 100% net GHG reductions in relation to petrol and diesel.

- In 2007 a US/EPA protocol (consistent with the UN/IPCC guidelines) was developed to provide a reliable average weighting of CO_2 mitigation by biofuels from petrol and diesel, based on the replacement of 1 gallon or litre of petrol or diesel by ethanol or biodiesel.

- The protocol determined that 1 litre of 1st Generation ethanol extracted **2.32kgm of CO_2** per litre from petrol, and biodiesel **2.66kgm of CO_2** per litre from diesel fuel - **a biofuels mitigation average of 2.5kgm of CO_2 per litre from transport petrol and diesel.**

- Based on the US/EPA protocol, average biofuels displacement of CO_2 from10% of annual Australian transport petrol and diesel consumption (3.6 BL) would be **9 million tonnes of CO_2 per annum.**

No proven fuel technologies can come close to biofuels in relation to the displacement of CO_2 from fossil petroleum fuels at this time, and into the near future.

[1] From 1st to 2nd Generation Biofuels technologies Report, IEA, November 2008.
[2] Emission Certification of Diesel/LPG Conversions – Removing the Barriers, by Peter Anyon, November 2008
[3] Energy Strategies 1996 & 2001; QLD/EPA Peer Review of CSIRO2001 'Comparison of Transport Fuels;' CSIRO Study Shows Ethanol a Clear Winner for Australia, 2005 PR; 2007-08 CSIRO Power/Point Presentations.
[4] www.epa.gov ; www.epa.gov.oms/renewablefuels/420d06008.pdf (pages 174 to 200)

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In part, this also explains the persistent expenditure of significant financial resources by OPEC and the global oil sector to undermine and demean the credibility of biofuels in the eyes and hearing of the global public.

- Reflections of these claims and characteristics are also evident in key Commonwealth and State entities that have faithfully served the petroleum and mineral sectors over decades past, and continue to do so, as opposed to the national public interest.

- Unfortunately the fate of biofuels, and alternative fuels in Australia have been in the hands of vested interests incapable of accepting the inevitability of change in the global transport sector – including in Australia – or resisting change in support of maximizing tax revenues and profits from energy crisis driven rises in fuel prices.

Establishing scientific or general facts always lag behind ambit claims - positive and negative. This has been proven in the case of accusations that biofuels take away food from the mouths of the poor. **CSIRO and RIRDC** studies[5] have determined biofuels in Australia have no current impacts on food production and land use issues, and impacts in agriculture and other value chains were unlikely until biofuels reached between 10-20% of transport fuel requirements.

Recommendations

1. The primary focus of any CPRS strategy should be change, and include the early deployment of proven and demonstrated emerging carbon reduction technologies, with renewables at the top of the scales.

    - Every effort, including free permits, should be focussed on investment, growth, and deployments of proven carbon reduction technologies – especially biofuels and other alternative transition fuels in the transport sector.

    - Achievement of benefits should be extended to polluting industries, with credit allocation and issue tied to demonstrated extent of carbon emission reduction, and based on the securing of stated company-by-company reduction goals, not comfort for profits made in the past.

2. A clear separation and distinction between proactive carbon reduction activities, and potential but uncertain reduction profiles of major polluters to avoid the cart pulling the horse syndrome should receive active and urgent attention.

3. The CPRS should be set aside until a comprehensive review is undertaken, and apparent flaws addressed.

4. The practice of primary focus on big industry comfort be set aside, and reviewed.

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[5] Biofuels in Australia – Issues & Prospects Report for RIRDC by CSIRO Sustainable Ecosystems, May 2007

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