

## **Submission to the Department of the Environment, Heritage, Water and the Arts, regarding the proposed management of Diesel / Biodiesel blends.**

The following submission is in response to proposed management of diesel/biodiesel blends document, published on the Department of the Environment, Heritage, Water and Arts website.

### **Certainty**

In the executive summary of the paper under discussion, it states the Government's preferred position is "to allow the addition of up to 5% by volume of biodiesel". Further down the page at numbered point 3, it is stated that "(This approach takes into consideration three key factors :) 3. The need for certainty and confidence for both retail and commercial consumers."

Surely certainty comes from using a firm, fixed and legislated 5% - not a vague figure that allows the blender leeway to add as low as .01% biodiesel and still call it B5.

All blends however, of whatever percentage, if sold as a blend of Bxx, must meet the Australian Fuel Standard (Automotive Diesel) Determination 2001, as amended September 2006. There is no point in trying to build public confidence if we do not have a strong standard and stick to it.

I believe it would be very important to ensure that blends over 5% are properly labelled so that the buying public are adequately informed.

Quality of biodiesel that is made from a quality feed stock of known sources and produced in a specifically designed, and properly managed plant, will produce fuel that will at least meet, and in many cases exceed, ASTM D6751

I have not seen a single article or scientific paper that, if biodiesel meets or exceeds this standard, mentions any adverse affect occasioned to any internal combustion engine.

### **Warranties**

All through this DoE paper, mention is made of the OEM's acceptance of a 5% blend. This is actually total misleading. No damage that can be attributed to being caused by any fuel, either diesel or biodiesel, is covered by any manufacturers warranty. It does not matter if that fuel met the world's highest standard. If the manufacturer deemed the fuel caused the damage, there is no cover under any warranty.

This continual mention of the OEM's acceptance is misleading on another front and that is the warranty on any vehicle expires – the majority at 3 years or 100 000kms. Thereafter, the OEMs don't give a damn what happens to the engine.

Further comments are made throughout this paper that some engines will not be suitable for biodiesel because there are some components of the fuel supply system that are not compatible with biodiesel.

This is true for older vehicles but not really true for modern vehicles. I hazard a guess here but I would presume that all manufacturers have moved to synthetic materials for

manufacture of fuel delivery hoses and internal seals. If they have not then the Government needs to ensure that the ADR's are changed to ensure that any engine coming into Australia is fully biodiesel compatible.

It has been indicated by some manufacturers (MB in particular) that their latest engines, fitted with Diesel Particulate Filters will not be compatible with Biodiesel. This is another misleading statement propagated by the OEM's. Biodiesel produces less particulate matter and these are burned at lower temperatures thus the life of any particulate filter will be extended with the use of biodiesel.

### **Other Blends**

There are thousands of private citizens who currently use B100 or blends varying from B99 to B10 and lower. By legislating that blends higher than B5 are only available to captive or commercial fleets, and then only after going through bureaucratic red tape every year, these private citizens will no longer be able to buy higher blends at those service stations currently selling the higher blends.

For the life of me, I cannot see what the difference is between an electrician employed by, lets say Origin Energy, driving a Toyota Landcruiser diesel ute and an electrician employed by Joe Blow Electricians driving a similar vehicle.

Origin Energy, because of their fleet status will be able to apply for and obtain any blend they choose to apply for, yet Joe Blow cannot. This does not make any sense what so ever.

And then there is the farmer's wife who also drives a similar car – same story. She cannot go to Stumpville Servo and buy her usual B20 anymore and is unable to apply for a variation because the farm does not have a fleet.

Hidden economic costs have to flow from a legislated capped blend. As I see it, the major oil companies will be trying to buy every drop of biodiesel that is produced in Australia. This will mean that certain service stations that currently sell B100 will find their present supply dries up and they will be unable to afford the prices that the big oil companies will be able to charge. They will be forced to close.

### **Environment**

It is well known that biodiesel has a huge positive impact on our environment. There are dozens of reports and papers that reflect the truth of this. There is one exception to the list of benefits, yes – just one – NOx.

The information the DoE paper is relying on comes from one engine test, run on a dynamometer and it simulated a heavy commercial vehicle taking off, up a hill, in 3<sup>rd</sup> gear. Of course the emissions were off the scale.

The Government needs to take cognisance of other tests that have been done in real life situations. The nearest to home is the test program run by Camden City. ([www.camden.nsw.gov.au/page/biodiesel\\_trials.html](http://www.camden.nsw.gov.au/page/biodiesel_trials.html)) This report concluded that there was no significant increase in NOx emissions during the 6 month trial.

During a recent visit to Australia, Steve Howell, Chairman of the USA's ASTM Biodiesel Task Force, demonstrated that there were differing reports on NOx emissions, depending on the type of test undertaken. He compared the US EPA HD Emissions test using a dynamometer and the NREL Vehicle Test.

The EPA test for B20 showed a 2% increase in NOx, whilst the NREL test showed 0% increase.

His conclusion was that the NOx impact was cycle dependent – i.e. the load the engine is working at determines the level of NOx.

It is a scientifically proven fact that properly manufactured biodiesel reduces Co2, hydrocarbons and particulate matter.

The higher the blend the higher the reduction of these pollutants. The USA EPA HD Emissions tests showed average emissions of total unburned hydrocarbons was reduced by 67%, Carbon Monoxide was reduced by 48%, Particulate Matter was reduced by 47%.

It follows therefore that if this government is really serious about seeking solutions to climate change they should not be looking to bind us to a 5% cap for diesel/biodiesel blends. I believe the Government is bound to allow blends up to at least 20%.

### **Economics**

I do not believe it will be in the interest of the biodiesel industry to restrict biodiesel blends to just 5%. Such a step would inhibit the market's natural expansion and thus slow down the environmental and economical benefits that accrue to increasing use of biodiesel.

There should never be a restriction on the sale of B100 at retail levels. The Government needs to recognise that people who choose to use B100 and blends higher than 5% are knowledgeable and educated about biodiesel.

As production of biodiesel ramps up there will be a corresponding take up of employment. The Government should be encouraging new participants, and therefore more employment opportunities, in this industry by not trying to limit the market with a 5% cap on blends.

Another benefit that biodiesel will bring to Australia is a reduction on the dependence of foreign oil. Every litre of locally produced biodiesel reduces our dependence on foreign oil and keeps our fuel buying dollars in Australia. Our balance of payments and foreign debt situation will improve.

The following figures are not substantiated and could be flawed but the idea represented is clear enough. I have guesstimated that we will need to find between 900 and 700 million litres of biodiesel to meet a 5% cap. Assuming we can produce this target of biodiesel here in Australia, we will be saving huge dollars in foreign exchange. (Treasury take note).

Every 5% increase in the allowable blend will increase this foreign exchange saving with a corresponding improvement in our nations Balance Of Payments position.

Allowing an increased level of blending will hasten development of alternative sources of feed stock such as algae, jatropha, pongama and mustard. There is a lot of development work being done right now on this very topic and breakthroughs are just over the horizon. All of these alternatives will ultimately produce increased employment opportunities.

### **Summary**

So, in summary, I would urge the Government to consider allowing more than just B5 blends. A blend of at least 20% will provide significant environmental and economical gains for all the people of Australia.

If B5 is the final position then it should be legislated that the blend must contain 5% biodiesel, none of this “up to 5%” wording.

Do not ban the sale of B100 at retail levels.

Should you have any questions or would like to discuss this submission in more detail, please feel free to contact me at