

# CORRECTED VERSION

## ENVIRONMENT AND NATURAL RESOURCES COMMITTEE

### Inquiry into the production and/or use of biofuels in Victoria

Melbourne — 4 September 2006

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#### Witness

Mr R. Bowden, chief executive officer, Service Station Association.

**The CHAIR** — I declare open this hearing of the Environment and Natural Resources Committee's inquiry into the production and use of biofuels in Victoria. I welcome Mr Ron Bowden, the CEO of the Service Station Association; thank you for your time. All evidence taken by the committee is taken under the provisions of the Parliamentary Committees Act and is protected from judicial review. However, comments made outside the precincts of the hearing are not covered by parliamentary privilege. All evidence is being recorded, and Hansard will provide you with a proof version of the transcript in the next couple of weeks. Could you make your presentation to the committee? We have allowed 40 minutes, and we need some time for questions at the end. Please go through your presentation and then take questions from us.

**Mr BOWDEN** — Thank you very much, Chair. I appreciate the opportunity and the invitation is very well received. For the record, my name is Ron Bowden. I am the chief executive officer of the Service Station Association, and I appear in that capacity. It may be of more value to the committee if we concentrate more on the questions rather than on my statement. I will make an opening statement, and then I will be more than happy to take questions as they arise.

The Service Station Association has been a very long term supporter of biofuels in general and ethanol in particular. The main reasons that we are such a strong supporter of these fuels is that they are generally cleaner-burning fuels and hence give us cleaner emissions. Obviously the impact on the environment is very important when you start looking at the issue of transport fuels. Biofuels are renewable, which is vital and becoming more and more important. They are locally produced, which is also becoming increasingly important.

In the case of ethanol, it is a high-octane fuel, and as a fuel extender it has significant value with petrol. As an octane enhancer it has even greater advantages to traditional petrol. Those advantages — that is, the octane enhancement qualities of ethanol — have not been taken advantage of in Australia, and in my opinion that is a great unused potential.

There are some obstacles with biofuels. If anything was that good and there were no problems, then why have we not had it before? Those obstacles are well known, but I can list them. There is a high cost of manufacture relative to crude oil. That is being offset largely because of government subsidy in recent times, even though that is not a permanent subsidy. Although there are issues of taxation that are having an adverse impact on the introduction of biodiesels on a more widespread basis than we currently have, I expect over time they will be resolved.

Other barriers are engine or vehicle manufacturers' warranties. That is proving to be a big thorn right now. There is also the lack of an independent distribution network. When I say 'independent', I mean independent of the established oil companies. Also from their perspective biofuels are seen as a competitor product by the major oil companies, and that is also a major barrier. In fact if you said right now, 'What are the two major barriers?', they are manufacturers' warranties and oil companies dragging their feet. In some respects the economics have been largely overcome by increasing world oil demand, and therefore world crude oil prices, which are only going to get worse, and also through federal government subsidies.

I will now have a look at the bigger picture and the outlook for crude oil supplies going forward, because that is crucial to the issue of biofuels. The current situation is very tight; there is a very tight supply-and-demand balance, and we expect that to continue well into the future with short-term fluctuations. What I mean by that is that there are all sorts of players in the market. When I am talking about 'the market' I am talking about crude oil markets. There are producers, who we could call suppliers; off-takers, who could be called refiners; and then there are financial market players, who we could call speculators, traders or whatever you will.

Being a free market on world terms, the market is dominated more by the action of the speculators than it is by the supply and demand. I will give two recent examples of that. About a year ago there was the terrible Hurricane Katrina in the Gulf of Mexico. In the lead-up to that, because of the hype, speculative activity was very high and as a result prices went through the roof. Once the full extent of the damage was known, even though there was extensive damage, prices actually fell away. You might find that is hard to believe, but in reality it is a fact. The speculators play on fear rather than fact, and the fear that there will be a disruption drives prices higher rather than the fact of a supply or demand problem.

We say exactly the same thing in the situation in Lebanon a few weeks ago, where the fear of disruption coming out of that region was greater than the fact that there was no disruption. Once it was clear that there was going to be a ceasefire, then the speculators quit the market, and we have seen prices dive ever since. In terms of gasoline,

prices have probably dived by more than 10 to 12 cents a litre in Australian terms since that time, yet there has been no change to the supply side. The reason I dwell on that a little bit is so the committee can fully understand that prices are driven more by those sorts of factors than by the real, physical supply or demand factors. Having said that, there is no doubt that the supply or demand problems are real and have been with us for some time. They are the reasons why prices have effectively doubled in the last 8 or 9 years and why they are going to continue to go up in the years ahead. The volatility will be driven by the speculative activity driving on fears.

When the next hurricane forms in the Gulf of Mexico and threatens the Louisiana coast, you will see a repeat of the same situation. It is funny that this dive in prices that we have seen in the last week has happened while there has been a shut-in of BP's Alaska fields at Prudhoe Bay, which actually cut about 8 per cent out of the US supply. We are actually handling that quite well.

These are the issues and they are not going to go away — we are going to be faced with these and with large fluctuations in prices well into the future — but we are going to see crude oil becoming an increasingly scarce commodity. World reserves do not give us very many years of supply at world consumption. The market presumes that the industry is going to continue to find significant reserves of crude oil into the future. While that is true, it cannot go on forever; it is a finite resource, and eventually we will run out.

The term 'peak oil', which I am sure you have all heard, is one of those things that many participants in the industry differ on. Some people have said that peak oil has already been reached, but I do not agree with that. If you listen to the oil industry they will tell you that peak oil is well after 2020, but the important thing is that it is not that far away in terms of the total history of energy demands in the Western World. As a society we need to understand and accept the fact that crude oil is finite in a relatively short period of time, so that means it is going to be subject to fluctuations in pricing and will become more expensive. The response to that is the obvious. We need to be more active in conserving what we have got; we need to try and find more; and we also need to say, 'Even that is not going to be enough, and we are going to need to find alternative forms of energy'. Biofuels are an important component of that strategy.

Let me also come back to the concept of crude oil. Some 75 per cent of the known reserves in the world are in countries whose governments are either unstable or are unsympathetic to the West, yet it is the West that is the great consumer of crude oil. So politically the West is not in a great position to dictate how much it is going to pay for its crude oil. It is going to receive rather than dictate exactly what the price of energy will be well into the future. The outlook for new reserves is not all that rosy. They are likely to be in Russia or in very deep water wells off the coast of Africa or the coast of South American. I would not like to be pinning my future on stability of government out of Russia or stability of pricing out of Russia. Besides, most of that is going to be earmarked for the Chinese market; the pipelines are already being built.

The deep water wells are extremely expensive with no guarantees of success; therefore the recipe is for continuing high prices. The idea that we are going through some sort of bad stretch and that at some stage in the future the system will return petrol prices to normal is a myth. It will never happen. One of the important things that we must embrace as a society is the fact that there is no such thing as a right to cheap petrol, because those days are well and truly gone. We would be doing our next generations a great disservice if we did not embrace the fact that we need to place a much higher value on this scarce resource than we do at the moment. On a personal note, I think it is criminal that some businesses in this country actually give petrol away below cost to suit some other commercial purpose. That product is far too valuable to be given away. I think it is a disgrace.

I will now narrow my comments down to the important issue of today, which is the role of biofuels in all this. We believe that biofuels are a very important and very necessary part of the overall supply equation going forward. It is not going to be the answer. The answer will be some new forms of energy that have not been developed as yet, but in the short to medium term, biofuels — ethanol in particular — are very important fuel extenders, and I think it is important that society embrace these.

If we come down to a smaller perspective and start looking at production facilities of ethanol, there is not much production in Australia. Ethanol has been around for a long time. It is a by-product of the distillation process. It is the same stuff you buy in wine, beer and spirits. It is made in basically the same way from the same time of product and the same type of material. In Australia it is made mostly from sugar. CSR is the main manufacturer. It has been making ethanol for a long, long time. More recently in 1992 a company called Manildra built an ethanol production facility on the south coast of New South Wales, and there is a small distillery, as we call them, at Rocky Point in

Queensland also making a small amount of ethanol. So at the moment you have only those three producers of ethanol. All of the capacity of the sugar producers is fully booked and fully taken. Manildra's capacity is probably in the order of only 50 per cent or 60 per cent of full utilisation. There are reasons for that, and I will come back to those later.

You are probably aware that the federal government has biofuels targets and also has a number of financial incentives to assist organisations into ethanol production or biofuel production. The take-up of that has been slow, and I will go into the reasons for that later. We are looking at a lead time of probably two to three years from somebody saying, 'We would like to get started' to the first drop getting out into the marketplace. The main barriers to those production facilities or those consortia is that they are having a great deal of trouble finding a buyer for the product. In these days of marketing you are not going to spend millions of dollars on a facility unless you are very sure you are going to have an uptake at a good price, and that comes back to the lack of enthusiasm of the oil companies, which can be the only buyers for ethanol, to take the product up.

The other barrier is planning controls. I am not going to comment on those other than to say that they are necessary but they are also very time consuming. If there were a positive step that could come out of this inquiry, it would be coming up with ways of trying to streamline the planning process without in any way jeopardising the important outcomes that come from a proper planning process.

I am getting to the end of my presentation now. There are some barriers to ethanol. Firstly, there is a poor image of ethanol in terms of its history. It largely has itself to blame. Under current government fuel regulations, ethanol is limited to being a maximum of 10 per cent of petrol. That was not always the case. In fact it is only fairly recently in the last few years that that has been the case. Prior to that, there was not a federal specification for petrol, which we found rather surprising. You could legally put anything in a tank and call it petrol and not be subject to action. As a result, some ethanol producers took advantage of that situation to put petrol into the marketplace that had in excess of 20 per cent ethanol in it. While that is not desirable, we are not aware of any reports of vehicle damage that was actually caused by that.

If I can just digress for a moment, the Brazilian market has been operating very successfully on 25 per cent ethanol in petrol for many years, with a very small amount of modification to the vehicle. In more recent years it has been able to operate at up to 85 per cent ethanol. The vehicles there are what they call flex-fuel vehicles, and they are all manufactured by the same companies that manufacture and sell in Australia. The only thing you need to do is modify some of the components in the fuel management system. Once the fuel gets into the combustion chamber, then it is fine. There are absolutely no problems with it.

Ethanol in high concentrations can attack certain seals with rubber components and can be slightly corrosive when it comes to some mild steel components such as fuel tanks or fuel lines. I am told that in large-scale production facilities the cost of modifying standard cars so that they can handle up to 25 per cent ethanol is less than \$200, so it is not a financial barrier, it is a marketing will barrier, and we do have those barriers here in Australia.

I return to my earlier point which was that such high concentrations of ethanol — which in those days did not attract excise and which still does not attract excise, although it is done by a different mechanism — and such quantities of excise-free fuel in a marketplace had the impact of significantly lowering the retail margin that was available in that marketplace. That meant that those businesses that were selling petrol without that ethanol and without that price advantage were really struggling. Suffice it to say that when the Sydney market — which from an oil company's perspective is probably the market with the highest retail margin in Australia — was attacked by these high levels of ethanol, there was a reaction, and that reaction was to give the product a bad name in the media, and it was very successful. The industry is now supporting ethanol and is now in the process of trying to undo the bad work it did four or five years ago. That is also true in Victoria. I have a number of contacts here in Victoria who still think that ethanol is some sort of poison to a motor car. Believe me, ethanol is more poisonous to the human body than it is to a motor car.

We need to overcome oil company resistance. To a certain extent that is happening because of the threat of mandating. Without the threat of mandating, which is coming at both state and federal levels, you would see the oil companies remaining extremely recalcitrant. BP is probably the most forward-looking in terms of embracing ethanol and biofuels or biodiesel. Caltex is embracing biofuels, but to a lesser extent. Shell is just playing around the edges and trying to look like a good guy, and Exxon Mobil has done nothing at all and is giving no indication of doing anything.

When you consider that those four companies make the petrol that the ethanol needs to be blended with and that those four companies control 100 per cent of the fuel in Australia, it is clear that without their commitment to and endorsement of an ethanol biofuels process, you are really not going to get anywhere. Because of that, the threat of mandating has had to be waved in front of these organisations to get them on board. From a personal perspective, I am not necessarily endorsing mandating, but if we did not have the threat of mandating, then we would not be where we are today.

With that goes the need for a distribution outlet. There is no point in having, say, a marketing campaign that gets the public all excited about ethanol — or E10, which is the name for the blend — if they cannot buy it. There has been some very positive publicity in Queensland and also in New South Wales, and there are also a number of frustrated consumers who say, ‘But where do I get it?’, and that becomes a major problem. Up until now it has been the independent service station owners who have led the charge in terms of getting ethanol out into the marketplace. There are a lot of independents in Sydney and southern New South Wales who have been selling ethanol, but they have not been selling it in a positive sense in terms of promoting the brand because of the legacy of the bad publicity. That is still an ongoing problem.

There are some independent chains — United is probably the best example, and it is pretty widespread — which are actually promoting ethanol as a brand in a very positive sense. More importantly, they are pricing it correctly. They are passing on to the consumer the advantage of the government excise, which is basically about 4 cents a litre. With a positive image and with correct pricing, the public acceptance of E10 and the sales of E10 have been very good in that network. We have also found that in Queensland the Newman Group and the Freedom group are using the octane benefit of ethanol when added to a 95 premium unleaded and turning it into a 98 premium unleaded, which cannot be bought by independents. Those networks are then able to sell a 98 octane petrol at a 95 octane price, and that is being extremely well received.

There are some good signs there, and it is a matter of having a positive image and being correctly priced. It is interesting that BP and Caltex have been trialling E10 in Brisbane on and off for a long time, and up until very recently both those companies priced their E10 and their unleaded petrol at the same price. When I challenged them about it, they said they saw ethanol as a competitor product and they did not want to give a competitor product a price advantage, even though that price advantage was actually the government excise exemption.

I noticed that about a month or three weeks ago, obviously under intense pressure, Caltex announced that it is going to price its E10 at 3 cents a litre below its normal unleaded price, and so it should be. Both those oil companies were complaining that when the price was the same, the public uptake of E10 was disappointing. That is not surprising, but once you price it the right of way and you take advantage of the federal government’s excise holiday, then the whole thing changes right around. We are making slow progress and we are slowly overcoming those barriers, but there is still a long way to go. I will stop at that point and open up for questions.

**Mr HILTON** — Thank you for your presentation. I understand that in Europe the maximum level of ethanol-blended petrol is E5. Is there a reason for that?

**Mr BOWDEN** — The only reason I know of is that that is the level the car manufacturers were prepared to endorse. I am not familiar enough with the overall situation in Europe to go into it chapter and verse. I know in the US it is 10 per cent ethanol.

**Mr HILTON** — If that is all they are prepared to do in Europe, is it feasible to have E10 in Australia?

**Mr BOWDEN** — Is it feasible?

**Mr HILTON** — Is it feasible to have E10 in Australia if the car manufacturers in Europe are only prepared to support E5?

**Mr BOWDEN** — I do not want to sound evasive, but it is a question of whether you are asking is it feasible from a technical perspective or is it feasible from a marketing or supply perspective. There is also a difference between having a fuel standard that sets a maximum of ethanol at, say, 10 per cent, or 5 per cent as in Europe, and having a fuel level of ethanol. In Australia we have set a maximum standard of 10 per cent ethanol in petrol, but if we were to use that as a target and say we wanted to have 10 per cent of our fuel to be ethanol, then I think we would have a really hard time producing that much ethanol.

From an Europe perspective, to have the whole of Europe at 5 per cent ethanol would be unsustainable, but it means that there are areas in Europe where you can have up to 5 per cent ethanol or areas in America that can have up to 10 per cent ethanol. A number of the American states have ethanol mandated at between about 7 per cent and 10 per cent because it is an oxygenate and because it has those cleaner burning characteristics. That does not mean that every litre sold has 10 per cent ethanol. It means that a percentage of fuel is sold at 10 per cent ethanol, and the overall mix across the whole nation is probably only in the order of 1 per cent or 2 per cent. To be realistic, it would be very difficult to see, across the board, ethanol or biofuels reaching anything more than about 2 per cent or 3 per cent. Otherwise we would have no wheat to eat for our bread.

**Ms LOVELL** — You talked about one of the main barriers to ethanol-blended petrol being the engine warranty. You also talked about having to modify engines for a blend of around 20 or 25 per cent. Are you quite confident that a blend of 10 per cent will prove no detriment to any engine in Australia?

**Mr BOWDEN** — Here I have to rely obviously on the FCAI, which is the association representing car manufacturers and also motoring bodies such as the NRMA and RACV. I am told by all those groups that with the exception of a lot of vehicles manufactured before 1986, there is only a handful of cars whose fuel systems would have difficulty handling E10. Certainly all new cars would and as far as I am aware now, new cars have a sticker next to the fuel cap which says, 'This car is suitable for E10'. So it is not anticipated that there would be anything more than a very small number of cars that we may need to be cautious about. It is a different thing for motorbikes or small two-stroke or aeroplane engines — that is a different kettle of fish.

**Mr DRUM** — Thanks for your presentation. You mentioned how the public has lost confidence in the sector because of the job that was done on the ethanol sector when certain people were selling 24 per cent without people knowing. Therefore the oil companies at best are ambivalent about purchasing the ethanol. How do governments turn that confidence in the public sector around so that effectively you have the public suddenly realising it is not a nasty, that actually it is a positive to have blends, and the E10 is a positive apart from the cost? Do governments have a role as Queensland does, mandating that its all-government fleet should be using the E10 blends, and then effectively the public gets the confidence, the oil companies start to realise the need to purchase it, and then all of a sudden distributors start to sell E10 at more than the 50-odd sites that do it currently?

**Mr BOWDEN** — Basically yes, there is a role for a government, and what the Queensland government is doing we fully support and we think it is a great idea. The federal government is in a similar mode although it is less active. Certainly the use of car fleets whether they be Comcar fleets or state car fleets is important. That in itself is no guarantee of anything great but it is a good PR statement.

The other thing that is happening is a recognition by government — we are starting to see this now — that there is an issue long-term with crude oil supply and the security of the oil supply. Australia used to be a net exporter of crude oil. We actually used to be a net exporter of refined product. Those days are long gone. We now import most of our crude oil. We actually import 25 percent of our refined product needs because we no longer have self-sufficient refining capacity. So the import bill for crude oil and refined products is now around about three-quarters of our current account deficit.

Those sort of messages and the role that the biofuels can play to turn that around — biofuels being a locally, Aussie-produced product — in other words this is something that we can do, because so much of the high price of petrol is outside the government's control. These are important government messages. In that respect it is a political message but it is still coming from people in government that people in the public listen to. So there are some positive messages there.

There are also some very important positive campaigns that are getting the positive message of ethanol and biofuels out there. The Queensland government has done a very good job in terms of engaging marketing professionals to build a positive message campaign, and I think they have also engaged a personality like an ethanol ambassador — using that within the Queensland general area to get positive measures about ethanol. Even though none of that is happening in New South Wales, which is my home state, the fact is that there is now a very strong media support for ethanol.

Back in the bad days it was actually the other way around, and it was people such as me that have been very active in educating their media and turning them around into the positives and for the media the latch onto this now as a good news story. You are starting to get that wave of support, that groundswell. As an example a few weeks ago,

maybe a month ago, I received a call from a media outlet in the Hunter Valley in New South Wales which had received a call from a listener saying, 'My local United service station which sells ethanol has run out. Where do I get my ethanol?'. That is an example of things being turned around in a positive sense so when it comes to positive messages, it just needs more and more positive reinforcement. Certainly there is a role for government in those areas. Statements from politicians are very important but you can also have if you like a marketing professional or professional marketing campaign that lifts that image. I think Queensland has done an extremely good job in a fairly short space of time.

**Mrs COOTE** — Thanks, I found that very interesting. In the 1970s I worked for BHP petroleum. In the 1970s we had a huge problem and world pressure on the oil, and I agree with you about the heavy and light groups that you mentioned. An enormous amount of work was done including Ralph Sarich and the Sarich engine. And then it stopped, and there was no more research and development and we went back to being dependent upon crude oil again. How long is it going to take in your estimation to upscale both the delivery and also the modification of vehicles to a stage where it is actually going to be widespread enough to make ethanol usable as an alternative, and do you envisage in that building-up time the fact that we might have moved on again and it looks like the Ralph Sarich engine and it will bypass ethanol? Do you believe ethanol is here to stay and it can be done correctly and quickly?

**Mr BOWDEN** — It is an interesting point. Going back to the 1970s and 1980s, I was working for Esso at the time when Esso had intended to develop the Rundle oil field in Queensland. I was in Queensland at that time. It is amazing how things turned and nobody is talking about shale oil any more. I can also remember working in planning for Esso 30 years ago when the price of crude oil was going to be — shock, horror! — US\$60 a barrel within a short period of time. Both Frank Topham and myself laugh about the days and how we keep getting the projections wrong.

One thing for sure is that in those days the price of crude underlying was somewhere about \$12 or \$14 a barrel. We had predictions of oil going to \$60 a barrel. Now it did not quite happen, and because it did not happen all those plans that were in place for alternatives — the tar oil sands in Canada — again, they are not being developed to the same extent. In other words we keep putting it off, and we keep putting it off, and we keep putting it off. At the same time the cost of crude oil is no longer US\$14 a barrel. It is now comfortably above around about US\$60 a barrel and it is going to go higher. One of the reasons is that it is going to cost that much to find and extract the new reserves because we have used up all the fine stuff.

You cannot have sudden, large-scale switches from one sort of technology to another. The disruptions to everything in our life would just be intolerable. We need to have the transitions as smooth as possible, so ethanol and biofuels are a fuel extender, as I said in my opening address. They are very important fuel extenders, as we extend out the life of the crude oil. Crude oil is not only important for transport fuels. It is also important for other things such as plastics, lubricants, asphalts and in some cases pharmaceuticals and solvents. We will always need to make sure we have some crude oil left in the world to provide those other alternatives. This is funny, because plastics are a by-product of petrol. In future petrol is going to be a by-product of plastics. But we are going to have to have significant alternative fuels. Biofuels will not take the place of crude oil. It is an interim process. It is a fuel extender while technology moves to alternative forms of energy. Personally, I think that nuclear-powered or driven hydrogen is probably going to be the fuel for personalised transport in the future. When that happens there will be no role for biofuels. But that is a long way ahead.

**Ms DUNCAN** — Are there any physical problems with storage or distribution at the moment from your point of view, putting aside the oil companies?

**Mr BOWDEN** — Do you mean technically or — —

**Ms DUNCAN** — Yes, physically, in terms of getting it into your stations and distributing it out?

**Mr BOWDEN** — The answer is no, although in some cases it is a big no and in some cases a small no, or a no with a question mark. Let me explain. If you are going to take an existing tank and convert it to an E10 tank, you do have to have a proper cleaning process to prepare that tank because ethanol attracts water, and if you have water or rust inside your tank the ethanol in the E10 fuel will pull that out you will end up with a whole lot of gunk that blocks filters, et cetera. It is not a problem so much for the car; it is going to be a problem more for the fuel system. So there does need to be a standard cleaning-up of the tank if you are going to convert it to E10. For that

reason the federal government recently announced grants to enable service station operators to convert one tank over to E10. We think that is a great initiative. I think the Queensland government has done the same thing. I expect that that will be well endorsed. That is really the only barrier. There are enough servos out there; there are enough tanks out there. With the money now being made available federally for operators to actually start converting their tanks, the only thing we need now is the availability of the product.

**The CHAIR** — Will your organisation support ethanol importation once the changes are made?

**Mr BOWDEN** — That is a very political question. Most of our positions regard the technical issues obviously as they affect service stations and the market side of their operations. The issues of imports, taxation and industry protection bring in a whole lot of other issues that are very difficult for us to comment on. One of the reasons why we are reluctant to endorse mandating is that if you endorse mandating, given the fact that you cannot guarantee the supply of ethanol, if you start to mandate then you start to say we are going to have to embrace imports to be able to make sure that we have the capacity to meet that mandate. My concern about imports is that if we are not able to compete on an equal footing with those imports then one of the major advantages of using a biofuels basis, which is an Australian-produced commodity, then we lose a lot of the advantages of having it. While it is important to make sure that we have a competitive framework and that the consumer benefits from whatever that is, I think we would lose a lot if it meant that we had to have a lot of imports to make sure that that ethanol stayed. I think we would lose a lot of the advantages if we had to resort to a lot of ethanol importing. I do not know whether that answers your question. I think I hedged around it a bit.

**The CHAIR** — That is fine. Thank you very much for your time today. It has been terrific.

**Witness withdrew.**