ECONOMIC DEVELOPMENT AND INFRASTRUCTURE COMMITTEE

Inquiry into Mandatory Ethanol and Biofuels Targets

Melbourne—20 August 2007

Members

Hon. C. Campbell
Mr P. Crisp
Hon. M. Thomson
Mr D. Davis
Mr E. Thornley

Chair: Hon. C. Campbell
Deputy Chair: Mr D. Davis

Staff

Executive Officer: Dr V. Koops
Research Officer: Ms Y. Simmonds

Witnesses

Mr R. Beltrame, Technical Manager, Smorgon Fuels Pty Ltd; and

Mr M. Soda, Managing Director, Smorgon Fuels Pty Ltd.

THE CHAIR—Welcome to the public hearings of the Economic Development and Infrastructure Committee's Inquiry into Mandatory Ethanol and Biofuels Targets in Victoria. All evidence taken at this hearing is protected by parliamentary privilege. Comments you make outside the hearings are not afforded the same privilege. Could I ask each of our witnesses, please, to state name, business address, the company that you are representing and your position within that company.

MR SODA—Mile Soda, Smorgon Fuels, 9-11 Maria Street, Laverton North. I am the Managing Director for that business.

MR BELTRAME—Reno Beltrame, Technical Manager and Quality Manager for the same business at the same address.

THE CHAIR—Over to you for your submission.

MR SODA—I will start with a bit of historical background, how Smorgon Fuels got into the business, how we see our position within the global biodiesel business evolution. We will not be at all talking about ethanol because we have no expertise at this point in time in that business. It is fair to say that Australia's evolution of biodiesel is certainly well behind the Brazilians, the Europeans and a touch behind the Americans. The Brazilians have been working in this field since the mid-70s and certainly the Europeans, certainly 1980 and beyond, have built quite a substantial biodiesel industry within Europe and the governments and industry have worked very well together in the areas of mandating. For example, in Germany 5.75, and France and other countries already have gone through the process we are establishing at the moment and trying to understand. There may well be some opportunities there for governments to benchmark what has been done overseas.

Having said that, it is not always that the economic situations, the feedstocks and other needs of those countries may reflect here in Australia. A good example of that is in the United States. At the moment the United States are manufacturing biodiesel plants, almost one a month, with support from the federal government's $350 per tonne rebate and a number of other strategic reasons that the United States Federal Government has got involved. A lot of the information is based on soy, which is the feedstock of preference they use in the United States, where here in Australia we typically use canola, particularly in the winter months, used cooking oil, tallows of different grades and palm oil, which is imported either in a crude form or bought in as an ester.

Australia’s evolution of biodiesel - it is in three sections, as I see it. We have the enthusiasts. The environmentalists have been probably for 10 or 15 years collecting used cooking oil from the local fish and chip shops and have got together and made a crude biodiesel to run their vehicles and are quite content. They have not basically gone to commercialisation of biodiesel plants. The last three to four years we have seen substantial money going into the public companies like Australian Renewable Fuels, Natural Fuels up in Darwin, and also our friends up in Queensland—what are they called again—Australian Biodiesel Group. They certainly got involved because of the potential for biodiesel.

Smorgons have been involved on the fringes of biodiesel for about five years, and in the last two years have made a commitment at our Laverton plant to go forward with the manufacturing of a 100-million litre plant. That certainly has had our challenges, predominantly in the area of feedstock pricing and economic value of biodiesel today. It is fair to say that biodiesel today, the economics of biodiesel today, is very different to the economics of biodiesel as short as 12 months ago. Part of that is the drought. Part of that is the cost of feedstock in some cases doubling; canola going from an average by-price of approximately $800 to close to $1200 a tonne; tallow going from approximately $400 to $450 a tonne to today between $800 and $900. Even if we had tallow there is not the availability because we are competing with food grade and so forth. The next group of biodiesel folks out there are best described as short-term visionary entrepreneurs who want to make money and have disregard for quality and disregard for standards and are prepared to blend a range of different concoctions of oils and spirits and call it biodiesel and put it into the market. These folks will—

MR DAVIS—What things do you mean by 'concoctions'?

MR SODA—They do not process the oils correctly. They cut back on, for example, washing. They

do not meet the ester levels. They might be using other spirits to add to it which, at the end of the day, they have a fuel that burns but in the short run may well cause blockage or in the long-term may cause some sort of an acid erosion of the vehicles or the actual engine block itself.

MR BELTRAME—Including recovered kerosene. Sometimes from the aviation industry they dump some kerosene or aviation fuel that they consider is substandard for some reason, and that finds itself into the marketplace as a cheap alternative fuel. It ought not to. It is against the law but it does.

MR SODA—The Federal Government, as we understand it, has basically two vehicles, two or three people—I am not sure how many people—and they go at random. I am sure they have a pattern of audits that they do on service stations and the like, and these people typically, as we are led to believe, are fuel people who are—making biodiesel zero to 95 per cent is pretty straightforward. As the ethanol fellows we listened to earlier, huge cost of capital. Yes, there is cost of capital but for less than $100,000 you can get into making a volume of biodiesel. To get the appropriate laboratory certifications and to make sure it is right, you would spend probably $200,000, $300,000 or $400,000 to get your lab set up, which we are doing. There are basically the three groups: the enthusiast who is out there, makes his own, uses his own, happy to go along, not commercial volume; the larger public companies and private companies like ourselves; and then we have a scattering of these individuals who are out there taking the opportunity to make short-term gains.

Smorgons are involved. We also have a long-term view. The key obstacle to biodiesel long-term is feedstock. Approximately 16 to 18 billion litres of diesel is consumed in this country. Victoria is somewhere in the order of six billion litres, and if you took the three feedstocks of canola in a non-drought year it is approximately 1.5 million tonne, and this year we are under 400,000, in that order. Tallow is approximately 500 to 6,000 tonne, and cooking oil, let's say it is the same as tallow. There is not enough feedstock to go and produce to replace litre for litre mineral diesel. Having said that, I have heard Association of Farmers say, 'Well, that's pretty simply solved. Give me another $20 or $30 for my tonne of canola and we will make as much canola as you need.' I am not an expert in that area.

Therefore, the short-term strategy for us is that we believe that mandating at five per cent is a doable goal. Long term we believe that investments through private sector and government support is—a project we are certainly in is algae. Now, algae has a lot of advantages over the current feedstocks. We do have a licence with Greenfields out of United States for Australia and New Zealand and we have developed initial R and D and small plant production at the back of our facility at Laverton and we have made biodiesel out of good old western suburbs algae out of Cherry Lake. It is a very tough species of algae. You are welcome to come and have a look at that.

We are in the process at the moment of working with the Latrobe Valley where we, in partnership, are developing the technology where we will be taking their flu gases, CO2, nox and sox and redirecting that into a facility—reactors, for a better word—where we will then harvest and grow algae. We are going through that process at the moment. We are anticipating by Christmas to have a half a hectare to a hectare of production of a species of algae, and hopefully next year some time we will start to extract some oil. Now, that is all—we are still in the R and D, we are still in the planning but we are moving forward. The benefit of algae has a number of issues. One is availability; two, it complements the guys from the Latrobe Valley because they are looking for ways to sequester carbon dioxide; and the yield per acre, depending on the specific species of algae, can be between 20,000, 50,000 and 100,000 litres of oil that is usable in biodiesel. Compare that to canola, which produces in a 12-month cycle 1000 litres of oil. Now, granted, we will need a lot of land. The guys at Hazelwood have a lot of land. We do not need to have drinking water. We can use the water that they use to cool their towers.

MR BELTRAME—They have a lot of water, yes.

MR SODA—To use to grow. We have a solution that still needs to have the finer details knocked out to support the cold-fired power stations, take their carbon dioxide, put it into these reactors and extract the algae. The nice thing about algae, its configuration is of carbohydrates, oil and protein, there is no waste in the system. As an absolute minimum, as I understand it—and Reno is certainly technically a lot more capable than I am—if we were even to grow the algae and not consider it for biodiesel, we would be able to dry it, redirect it and put it back into the power station as a fuel to burn.

To conclude on that part of it, there is a short term. We believe that a mandate of five per cent by 2010 is sustainable. Then we have a longer term view which is a project like algae where we believe that will not compete with the canola, will not compete with the food, feedstocks, and it is a nice way of not eliminating the carbon dioxide, but we estimate that at about 45 per cent, 35 to 45 per cent, because it is a photosynthesis process.

The mandating is, from our point of view, we have noticed in the last 12 months that the registration of diesel vehicles has gone up by something like 43 per cent and some numbers we have from the Automotive Chamber of Commerce. We are seeing a certain positive trend towards the consumers purchasing diesel. We certainly want to support that obviously going forward. We also notice from a B10 biodiesel compared to an E10 ethanol, if the goal was to reduce carbon dioxide emissions that biodiesel at a B10 is an eight per cent saving where our numbers show that E10 is about a two per cent saving. There is a multiple of four improvement, the same level of E10— in carbon dioxide elimination.

To control this we believe there are a number of issues of awareness. The general public's awareness of biodiesel, whether it is good for you or bad for you, tends to be—you get onto the internet, you bring up biodiesel and most of the case studies come out of the United States. From that point of view we do not use soy. Soy certainly provides a different outcome. Power does not meet the cetane levels and people will make comment on that. We are of the view that government can play a role in the positive reinforcement of where Australian industry is and where it should be.

We also see the use of palm oil—we deliberately do not use palm oil. We have a number of customers who are very concerned about the forests—deforestation in Malaysia, Indonesia and so forth—we certainly do not use palm. We are concerned that imports of palm esters, do they meet the Australian diesel standards. It is not only the Australian diesel standards, it is do they even meet the ester standards. We have some concern around the palm oil industry.

We also feel that for a mandate to support, five per cent should not be limited because we do have customers who are quite happy and willing, who are sophisticated customers who run transport companies. We supply one at the moment in Morwell who has been using—wants to use B100. We see a mandate as a very positive step but it should not restrict people who choose to use a higher blend of biodiesel. I think that is about it at this point in time.

THE CHAIR—As Mr Davis has to leave he has first question.

MR SODA—Sure.

MR DAVIS—Thank you for your presentation. The question I have about this algae, is this happening elsewhere in the world? It sounds fantastic if it works. Is there anywhere else that this is occurring in the same way?

MR SODA—I will start of and Reno can finish off. We make a good time. Basically with algae we are not aware of any commercial use specifically for biodiesel. Algae has a range of different applications for medical and—

MR DAVIS—I am thinking also of the use of carbon dioxide in the way you have described. Is that the sort of thing—

MR SODA—The other chap who is our CEO of the Victor Smorgon Group, which we are part of, is not here today, he is in Boston talking to the technology provider at the moment on where we are at. At this point in time it is fair to say there is no commercial plant that we are aware of, and we want to be the first—Victoria should want to be the first as well—but from a technical point of view we have proven we can do it.

MR BELTRAME—That is correct. There are some R and D issues that we are still working our way through. We are technically capable of doing it. We need to marry that technical capability with economics,

commonsense. We are now working down that pathway to establish a sustainable method that will achieve the outcomes we want and do it in a profitable way.

MR DAVIS—Thank you.

THE CHAIR—In terms of the testing, you have mentioned that both in your submission, as what you would make as a recommendation, you have mentioned it twice today where it is absolutely critical that standards are set, they are tested and monitored and obviously people breaching those standards be prosecuted. Would you like to expand a little more on that because that is really important.

MR SODA—Reno will talk about the technical side, I will talk in generic terms. We understand there is a lack of enforcement, specifically not enough people out there who are going to catch and prosecute. Fuel is a very difficult—

THE CHAIR—There are about seven people in Victoria do it for the Federal Government.

MR SODA—Is that right? Okay. For example, we are very careful who we sell to which at times, Christine, is to our detriment because we—

THE CHAIR—Short-term, long-term it could be (indistinct)

MR SODA—The challenge we have is someone buys our fuel, our B100—our B20 is all blended on site and we have a very rigorous process of quality control. But if somebody was to buy B100 who says, 'Well, I can buy it for a dollar. In the summer mineral diesel is costing me $1.25, we'll buy it and put it together and use it.' It is not that simple certain times of the year. One is the blending, two is at the moment, under the Cleaner Fuels grant all biodiesel producers must meet the biodiesel B100 standard, and every Friday we put in our submission, we are subject to audit from the ATO, and on 1 July 2006 the Federal Government decided for on-road and off-road rebates that biodiesel as a B100 was no longer eligible—up until then it was—and we had to then meet a blended product that met the mineral diesel standard. That caused a little bit of concern in the organisation but we have figured out a way how to do it at different blends.

THE CHAIR—What was the rational for that?

MR SODA—My understanding is they did not want double dipping because they were giving the producers a 38.143c rebate as a producer, and then the off-road was getting 18 point whatever that was. That was on-road. The off-road were also getting the 38.143. At the time there was this large expansion of biodiesel plants and somebody in Canberra sat back and said, 'Wow, we're giving these guys 38c for every litre. If the farmer comes along and wants his 38c where are we going to find $300 million or $400 million.' Now, I do not know that for a fact but that is the only logical—there are issues on the specific mineral diesel standards that we believe are obsolete and make no sense—Reno can talk more about that—and has no detrimental effect to the performance of the vehicle.

MR BELTRAME—Just to elaborate a little further on the question that you asked regarding the quality and the issues regarding substandard fuel, if you take a nihilistic approach, if the industry is going to sustain itself, including us and all the other manufacturers and importers into the country, then quality must not be questioned. If we are going to make rubbish product as an industry, the buyer will not accept it and it will go back to the status quo. It is in our interest and in everybody else's interest for a sustainable part of a total energy solution that quality be something that is mandated and enforced and people can feel comfortable that it is right. Then those people who are genuine manufacturers will survive and those who are backyarders or shonks, or whatever word you want to use, will fall by the wayside in due course. The consumer needs to be well assured that the quality is there, that we are going to take care of them, we stand by our fuel and that they will not have problems with their engines.

Now, in order to do that there are certain standards that have been put in place in the biodiesel standard and those assure the quality of the fuel as a biodiesel. Quite a number of the smaller entrepreneurs, shall we say, have produced product that we have been able to have a look at and, unfortunately in most instances, we have found that they do not meet a number of the most critical standards, let alone those that might be negotiable if

any such thing were the case. That raises some concerns that these people will tarnish the market, will tarnish the performance and ultimately the acceptance and quality related to this business. We are concerned first of all that everyone should be on a level playing field. We all need to meet the biodiesel standard and no questions asked about that. If everyone is held to task on that, that is point number 1 that we would advocate.

Secondly, only that biodiesel that meets the biodiesel standard may be blended with mineral diesel to form a blended fuel. In that regard we also have a number of other tests that the blended fuel needs to go through in addition to the previous ones for compliance on biodiesel, so we eventually have a fuel that is fit for purpose in all diesel engines under all circumstances.

The CHAIR—If you do the testing and you found something is not quite right, to whom do you or any other organisation need to report?

Mr BELTRAME—We are not obliged to make reports to anyone provided that we do not sell the product as a substandard fuel. It is my job in our organisation to assure that not one bit goes out the door without my imprimatur. That is self-regulation, and sometimes the government takes samples from various places and has independent ATO registered testing done in order to see whether the fuel complies. But we do not know when that is done, we do not know how frequently or how well, or whether they report the results or whether they hold people to task. We have no idea.

The CHAIR—Thank you.

Mr SODA—First of all, the Cleaner Fuel Scheme which we would be in serious breach of the ATO if we are claiming our rebate back and not having met the standards—

The CHAIR—I was not having a go at you I was more interested in other people.

Mr SODA—No, but what I am saying is we have a very robust process where we document—two reasons, Christine—

The CHAIR—No, I understand that. You have explained that to us really well in your submission and when we visited on site. My concern is those who are not doing the right thing, and where do people report them?

Mr SODA—I was on the inaugural board of the Biodiesel Association and the Renewable Fuels Association. We brought those together. There were people in that group—producers—who we believed did not meet the standard. I do not understand the ins and outs of how you approach these producers but you need to provide 24 hours notice. You need to do this and that. It is like saying, 'Hey, I'm coming, I want to do your testing.' There is a whole bunch of protocols, as I understand it. If I am wrong, I am wrong. I would like to see some information—

The CHAIR—That might be something we could look at a little bit in terms of protocols. If it could be argued that standards are not being met because there is a protocol that forewarns, that might be something we follow up with that particular association and explore it a bit more, unless you want to add more now.

Mr SODA—We have had an approach with transparency. We have had an approach where we feel confident enough that people should feel, in our view, if you buy a load of product off us you should be able to get a certificate stamp, but generally speaking what we are finding that labelling requirements—I do not believe they are only labelling requirements. We sell through our own service station in Prahran and we publicly—

Ms THOMSON—How is the service station going?

Mr SODA—Terrific. We need more vehicles to buy our E10 and B20, but from an awareness—we did that deliberately because we did not go out and promote—we are changing our name, of course, Energetix with Biomax. Also we have found these people out there are selling biodiesels. We decided, 'Hold on (1) we want to have a brand and (2) how better to go and talk to the larger transport, the generator—the user of that

mineral diesel,' and say, 'Look, we have a service station in Prahran, the public can go and buy fuel.' Also Liberty sell through Footscray and are about to open a second service station and they have been very happy. There may be a labelling requirement that where biodiesel is to be used there should be some requirement about what the blend is and who is the producer. In the event there is a problem with a vehicle, someone can track back. That is our approach being proactive, we will open up a service station, 'Here is our product, it's branded, come and use it.'

The CHAIR—I might offer you a suggestion. If you want local government or state government vehicles to access a service station other than those with agreed suppliers, you have to lodge a submission to that effect.

Mr CRISP—I would like to explore the non-retail sector for biodiesels. If we are looking to pursue a target by 2010 for diesel use then there is some merit perhaps in looking at those larger users that are not requiring retail support through service stations, which are your transport companies and some of your marine and other areas. I would like you to explore that area because there are some possibilities to achieve our target by getting some bigger customers on board.

Mr SODA—The economics of that, however it is going to come about, carbon credits or carbon, biodiesel is still a very expensive product to manufacture, particularly in a year where we have a drought and particularly in a year where canola prices come in at between $1,100 and $1,200 a tonne. At the moment we subsidise everything we sell simply because we are establishing a market. When we go back to the larger transport users of diesel they generally will buy better than us. At the moment the only incentive for larger users is how much less is it going to be than mineral diesel. We are waiting to see and to understand and learn how the carbon credits or carbon emissions are going to take place. If the larger users of diesel fuel had some incentive and some credit in the carbon scheme, that certainly could go to offset in the summer months. If we go back, it is the feedstock, the pricing, the drought, competing with the food sector, and it comes back—we can talk about price and quality and all that but the bottom question tomorrow when I meet with another MD he will say to me, 'That's all great, I know what you're doing, love the LG and all that, now how much cheaper can I buy your biodiesel?' I might say, 'I know you're very concerned about the environment, Fred, and for you, today's bargain, it will be 5c more.' He will have a giggle and I do not see him again. A lot of those things are driven around economics.

The CHAIR—Which from our perspective, given we have to focus on opportunities in regional Victoria as one of our terms of reference, if you were to establish successfully your project down in the Latrobe Valley, there are huge cost benefits for the Latrobe Valley if that were successful using your method.

Ms THOMSON—And the environment.

The CHAIR—And the environment, of course, but you are talking about this fictitious managing director called Fred who is interested in the environment but he is also interested in the bottom line which comes higher.

Mr SODA—Every time.

The CHAIR—Every time?

Ms THOMSON—I want to ask you a question and get back to the algae, which is interesting if you can get the economics of it to work. When we went down to have a look at Laverton, you were explaining that you did do some experimentation and some algae worked better than others for the process. Have you now finalised what you consider to be the algae that is most productive for this purpose or are you still testing that?

Mr BELTRAME—We have narrowed the choices down from literally hundreds to a handful and now we are doing the finetuning that it takes to establish the balance between productivity versus being able to be parasitised by other species versus the economics. All of that matrix is now getting put together and we need back-up stuff because in the long term when we go past the pilot plant stage, in the event that some unforeseen event takes place we then have option 2, option 3, option 4 right up our sleeves as well.

Ms THOMSON—You are talking now about the balancing of the economics for production versus the research.

Mr BELTRAME—Yes.

Ms THOMSON—What is your time scheduling on finalising that?

Mr SODA—We have an internal goal that I certainly push every (indistinct) I run the ideas of business and I would love to have a deal tomorrow but our time frame very loosely is that by Christmas time we will have an acre, half an acre to an acre, under a particular process of growing and harvesting the algae. Peter is in the States literally as we speak talking through some of those issues. We have talked internally and openly about having a goal by Christmas 2009. We would like to think that we would have some commercial arrangements with the guys down at Latrobe. That is kind of what our plan is.

Ms THOMSON—You can use the blue green algae off the Gippsland Lakes. You could have—

Mr BELTRAME—Blue green algae, no, they are nasty and they are not algae anyway.

Ms THOMSON—No, they are not, I know. Nice try.

Mr SODA—But that is one way we can get together with government and see whether the supports through R and D or what is available. I know we have some submissions at the moment in Canberra. I also know some months ago I was at Warrnambool and I think it was Brumby or one of them, there was a $4 million grant to put some carbon dioxide into—sequestered into the earth. If I read the article correctly it said, 'Well, we don't expect to have any real great results out of it,' and I thought, 'Gee, that's interesting, $4 million.' Anything that the Committee can recommend we can get together to work on it. Interestingly in business, when I was consulting, an MD come up and said, 'Can you fix my problems?' and I said, 'It's pretty easy I can fix all your problems. It's money and time,' and depending on how much money you may well—

Ms THOMSON—Another question, you were growing algae in the tubes down at Laverton. Do you see that as a long-term way of maximising actual growth and production or is this part of the experimentation?

Mr BELTRAME—No, it is certainly not the final structure that we envisage. It is purely a means by which we can grow enough to sequester and to do the work we need to do and to compare various species under various conditions to establish cause and effect and productivity and so on. It is certainly not the shape or structure that we envisage further down the track. That is a whole different arrangement.

The CHAIR—How much fuel are you aware of is used at the Latrobe Valley at the moment around the power plant?

Mr SODA—That is a good question. I do not know. What I do know is we are picking up a lot of customers down there. From that point of view they like the idea of having someone doing some work with the algae. We managed to pick up four new customers. But, no, I do not know.

Mr GREEN—I understand it is about 60,000 litres a day.

Mr SODA—From that power station.

The CHAIR—Thank you. Could you introduce yourself?

Mr GREEN—Sorry, I am Jonathon Green, I am working with the General Manager at Energetix Fuels (indistinct)

The CHAIR—Thank you. Thank you very much for not only today but the information you have provided in your written submission, your interest in showing our Committee members around your site at Laverton. It has been very helpful both today and your other work with us. Thank you very much.

Mr SODA—Thank you. You are always welcome. If you ever need to come around, or someone else, the doors are open and we are happy to—even on Thursday afternoon, anyone from the Committee, we have Dr Martin Mittelbach who is, I understand, the chair of the European Union Advisory Standards Committee to the EU. This Thursday he will be with us.

The CHAIR—You will have to go, Vaughn, we are all in parliament.

Mr SODA—You are very welcome to come down.

The CHAIR—Thank you.

Witnesses withdrew.

Committee adjourned.