

CORRECTED VERSION

ENVIRONMENT AND NATURAL RESOURCES COMMITTEE

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

Melbourne — 11 September 2006

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Witnesses

Ms M. Graham, strategy and research; and

Mr S. Rendell, manager, agriculture, Australian Ethanol Limited.

The CHAIR — I welcome Ms Michele Graham, strategy and research, and Mr Stewart Rendell, the development manager, from Australian Ethanol Ltd. I remind you that all evidence taken by the committee is taken under the provisions of the Parliamentary Committees Act and is protected from judicial review. However, any comments made outside the precincts of the hearing are not protected by parliamentary privilege. Hansard is recording all evidence taken today, and you will receive a proof version of the transcript within a couple of weeks. We might hand over to you for some statements, and then we can ask some questions as we go along.

Ms GRAHAM — Thanks very much, Jenny. I am Michele Graham from Australian Ethanol. I will tell you a little bit about our company first. Australian Ethanol is a listed public company on the Australian Stock Exchange, with interests primarily in Australia and the United States. We have a biofuels business in Australia, with our first plant in Australia just under construction a few weeks ago at Swan Hill in Victoria. We have also just started construction of a biodiesel plant in Nebraska in the United States.

The plant we are constructing in Swan Hill is a 100-megalitre-per-year plant. The ethanol is made from grain — a combination of about two-thirds wheat and barley and one-third corn. We anticipate that we will need about 300 000 tonnes of grain per annum to support that plant. At the moment we have negotiated contracts for the entirety of the distillers grain which is produced from the plant. That is our first plant, but we have under way development of a number of other projects around Australia.

In New South Wales we are looking at the development of three ethanol plants, and we are looking at a further two sites in Western Australia at the moment for that. The long-term approach that the company is taking is to have what we are calling a green-green strategy, which is to ensure that in the longer-term all our ethanol will be entirely produced from renewable materials. We anticipate that we will be establishing biodiesel plants alongside each of our ethanol plants, and the biodiesel will be used as a heat source for the production of the ethanol.

In terms of the things that we believe the government can be assisting with to help the establishment of this industry in Australia, one of the key things is the initiation of a consumer-confidence and education campaign for consumers. There is a lot of misinformation in the market about the options that consumers have for fuels, and we believe the government can take a leadership role by launching a campaign for that sort of thing.

Also, one of the other major ways that governments can show a leadership role in this is to use E10 in their own fleets. On a smaller scale, but nonetheless very much welcomed, there are public infrastructure-related things that the government can do to support the development of plants like this in regional areas. Just by way of example, with the plant that we have under construction in Swan Hill, there will need to be small upgrades to roads. That is one small but helpful way in which government can contribute.

Finally but very importantly, we are wanting to see consumers have the opportunity to gain access to alternative fuels like ethanol and biodiesel, so we are looking to government to set targets that take the industry forward in terms of providing more ethanol and biodiesel at the bowser, so making that available to consumers to make the choice. Forecasts show that it should be possible to achieve about 10 per cent ethanol in our fuel mix by 2010.

The CHAIR — Thank you. Stewart, will you add anything at this time or are you here for questions?

Mr RENDELL — No, I am fine. I am here for my good looks!

Mr DRUM — You and I both got that one wrong!

Michele, how much grain did you say you were going to use for that 100 megalitres?

Ms GRAHAM — Three hundred thousand tonnes.

Mr DRUM — What are you going to do in relation to commodities that are going to be essential — that is, natural gas and water?

Mr RENDELL — Natural gas is not essential. We will be using LP gas initially and, as Michele stated, we will then license our biodiesel plant and then run biodiesel through the plant as our heat source, as our green-green strategy. So we are not initially using natural gas.

Mr DRUM — But you will use LPG in big bottles?

Mr RENDELL — Yes, that is correct — in the initial stages. In fact in Swan Hill we will move the — this is very technical here — LPG facility out of the township, out next door to our site, and help council move that hazard from the city boundary as such. The other question?

Mr DRUM — How much water do you think you are going to need?

Mr RENDELL — On a daily basis through the plant we need 4.2 megalitres.

Mr DRUM — How much per year?

Mr RENDELL — On a yearly basis it is only about 1200 to 1500 megalitres. We positioned the plant out at Woorineen South, and it is on the end of the Woorineen pipeline system, so we are coming straight out of the Murray River through that very efficient pipeline system. We have a capacity share in there of 18 megalitres a day, which is more than adequate to fulfil our requirements.

Mr DRUM — And do you see any problems in coming up with that 300 000 or 400 000 tonnes of wheat?

Mr RENDELL — It is only 300 000 tonnes, and our strategy is to have one-third corn, so we are going to develop a corn industry of about 125 000 tonnes. Our catchment for corn will be Swan Hill down to Boort, across to Echuca and back into New South Wales — Deniliquin and Hay. That is only 10 000 hectares of corn in total, and the current corn grown in the Murrumbidgee–Murray Valley is 20 000 hectares.

If you look at the competitor crop in that regard, it is rice. Rice uses 14 megalitres of water per hectare, and we are going to develop this crop on 8 megalitres of water per hectare, and we have been doing trials for the last two years. So we have no problem in doing that. As well we are giving growers longer-term, five-year contracts and at good pricing, with some bonus levels in there, depending on starch and what we can sell the ethanol for. So we are very comfortable with achieving that. That leaves us about 175 000 tonnes of wheat and barley to come out of the Victorian Mallee.

When you look at the size of that and the crops that have been grown in there, we do not have any problem. Last year's production in the Mallee was over 3 million tonnes, and even with rain last week we will still have to strip crops up there in this drought, which is a good problem.

Mr DRUM — Thanks, Stewart.

Mr HILTON — I understand that in your submission to the biofuels task force you said that each ethanol plant could inject about \$50 million into the local economy. Does that take into account the money which may be taken out of the local economy due to downsizing or closure of stockfeed mills?

Mr RENDELL — With the closure of stockfeed mills, it is quite interesting. We had three stockfeed companies bid to take our wet distillers grain, which is a very important part of the economics of an ethanol plant. We had three groups bid for that, and one group will have taken it as a take-or-pay contract. When you look at it on a tonnage basis, we will take 1 tonne of grain. One-third of it goes into ethanol and one-third of it goes into distillers grain on a wet basis, so we are not having a one-for-one impact from the stock feed manufacturers' point of view.

Mr HILTON — My question specifically was whether you had taken that into account.

Mr RENDELL — No, we have not.

Mr HILTON — The modelling you use to come up to the \$50 million in increased revenue or economic activity in a region with ethanol plants established, can you share that with the committee?

Mr RENDELL — No, I am not aware of it.

Mr HILTON — You are not aware of that?

Mr RENDELL — No, that is outside my field.

Ms GRAHAM — I am afraid that is the case for me, too, but I can look into it and find out.

Mr HILTON — We have just had some evidence from CSR, who were also talking about establishing ethanol plants. They seemed to be saying that to be commercially viable they need to be looking at world best practice and the size of a plant of about 400 megalitres. Yours is a lot smaller than that. Is there any difference there?

Mr RENDELL — It is to do with the tyranny of distance. The reason that the plants — particularly in the USA — have gone to 400 million litres, which is 100 million gallons, is that they have a 300-million-tonne corn crop, so their feed stock into those plants is very close and handy. In fact in Nebraska where we are building the biodiesel plant we have done a feed stock study to build also an ethanol plant.

There is quite a detailed feed stock assessment that looks at the requirements of grain within a 50-mile and 100-mile distance. Also it states that if you impact any more than 20 per cent, it is not viable. Here in Australia you have got a significantly smaller crop of wheat. Last year we produced 25 million tonnes of wheat in this country, so we took the vision that it is only viable to build smaller plants, because you would have to start to drag your feed stock from a greater distance.

Mr HILTON — My understanding is that to supply all of Australia with an E10 product, we are looking at using about 25 per cent of the normal wheat crop in Australia — that is, about 4 million to 5 million tonnes; the normal wheat crop being about 20 million tonnes. In a drought year when the wheat crop is significantly less than that, and presuming that the industry has to enter into long-term contracts with the fuel industry to supply them with the products, we could be looking at the ethanol industry taking approximately 50 per cent of Australia's annual wheat crop. Is that a fair statement to make, and, if so, is that an appropriate use of our wheat resources?

Mr RENDELL — We have looked at wheat production, particularly over the last five years, and we have also looked at the grains industry's *Towards a Single Vision for the Australian Grains Industry 2005–2025* document, which states that growers must increase production. But we have also gone back and looked at what happened historically in the 2002 drought, when Australia still exported over 10 million tonnes of wheat. Last year we exported over 20 million tonnes of wheat barley, so if we were still exporting in a drought and we were going to use, say, 5 million tonnes in total for E10, I do not think it would be a real issue. They are Australian Bureau of Agriculture and Resource Economics figures.

Mr SEITZ — What government subsidy, either federal or state, have you received for your Swan Hill ethanol project, and would the project be economically feasible without a government subsidy?

Mr RENDELL — We have not received \$1 at this point in time. We do have, as we speak, an application going in to the Victorian government for some outside-the-fence infrastructure. We have not received a dollar. Therefore I think we are quite viable without government help, thank you.

Mr DRUM — It would be quite welcome, though, wouldn't it?

Ms GRAHAM — Very welcome.

The CHAIR — He was not offering.

Mr RENDELL — We did apply for the federal government capital grants in both rounds back in 2004.

Mr SEITZ — In the interim, given the changes and the competition for crops between feedlots and yourselves, do you see the prices of the cereal crops increasing?

Mr RENDELL — We believe at the end of the day it will put a floor in the marketplace, for sure. I delivered a speech last Friday night at Tungamah, and obviously having another player in the marketplace was something that the growers welcomed.

Mr SEITZ — How would you see that being regulated — purely on a commercial business basis?

Mr RENDELL — Commercial business.

Mrs COOTE — Can I go back to the issue of supply in a time of drought? If we look at the wine industry, it was the long-term contracts that the grape growers had with the winemakers in various regions that were a strong

part of the industry's survival. The people who had the locked-in contracts are the ones who remain very viable. Do you have those long-term contracts locked into your supply for security against a drought year, for example?

Mr RENDELL — Certainly as part of our definitive feasibility study we signed long-term corn contracts with corn growers, and they signed them at prices they were very happy with. We have covered about 30 per cent of our total corn requirements at this point in time, and we would look to be doing more contracts by June next year.

Mrs COOTE — On the other side, the production side, who are you going to distribute it to? Where does it go once you have produced it?

Mr RENDELL — We have struggled all the way through to get one of the big four to come alongside. The company has taken the position that we have done all the debt funding in the United States with the biodiesel plant and all the equity funding here for the Swan Hill plant to give us our fifty-fifty coverage, and we believe that by showing that commitment we will get one of the big four to the table. Having said that, we have had discussions with them and we believe that we are close.

Ms DUNCAN — Are you saying that at this point in time you do not have a market for this?

Ms GRAHAM — We do not have an off-take contract at this point in time, but we believe we do have a market.

Ms DUNCAN — You talked before about your impact on grain prices, particularly in Victoria, and your view was that you would set a floor rather than increase prices. Would that still be the impact if there were a 10 per cent mandate on ethanol, and am I correct in hearing you say you would support a 10 per cent ethanol component mandate — E10?

Ms GRAHAM — We support a volumetric target on ethanol, where we would ramp up percentages over time. It helps both producers and the government to have an understanding about what the likely ramp-up is going to be over time. We believe it is possible to support 10 per cent ethanol by 2010.

Mr RENDELL — That is without mandating — mandating is a big word. In regard to the grain pricing, yes, we will set a floor, but we think that from an agricultural point of view we will see yield increases and we will see growers change into feed varieties that have high yield potentials. We want to lift the Victorian Mallee wheat crop from a 1.8 tonne-a-hectare average to 2.4 tonne-a-hectare by utilising those varieties which have a better disease spectrum. We have shown that with some trial work already, and we are working with DPI on that.

Mr SEITZ — But it takes seven years to develop the new crops.

Mr RENDELL — Some of those varieties are already out there; they have just not been grown because of the marketplace.

Ms LOVELL — Just to make sure I have my figures right, you said you are going to produce 100 megalitres of ethanol per annum and that you would use 1200 to 1500 megalitres of water per annum?

Mr RENDELL — That is correct.

Ms LOVELL — So that is 12 to 15 litres of water to every litre of ethanol; is that right?

Ms GRAHAM — Yes.

Ms LOVELL — We heard various reports in our last hearing that it would be about 2 litres of water to each litre of ethanol produced, and we heard just before that it would be considerably less. What are you using the water for — is it just for cooling, et cetera — and do you have any plans for recycling that water, or are you going to continue to take it out of the Murray system?

Ms GRAHAM — At the moment our plan is to use wet distillers grain, which means a lot of that water is in the wet distillers grain when it leaves, but in the future we may end up drying that distillers grain, in which case the water that is taken out of that will be recycled in the plant.

Mr RENDELL — Out of the 4.2 megalitres a day for Swan Hill, about 750 000 litres of it is returned as waste water, and we will be utilising that waste water out on a plantation of about 60 hectares of red gum hybrids which, in the end, would become a forestry industry as such — something a bit different. That is what we are going to do with that waste water out of the plant.

The CHAIR — I have a question around the use of sugar cane versus grain. I understand why we use grain in Victoria, but is it economical, and what are the most efficient ways used in other states; do you know?

Mr RENDELL — I have no real comment on that. We are certainly looking at the fact that Australia is a starch exporter, and it certainly suits us at this point in time to go down that track and also to be able to sell the distillers grain into an emerging stockfeed market. We believe that, as in the United States, the development of these ethanol plants will bring new opportunities for the intensive livestock industry. I find it quite interesting that Rockdale Beef at Yanco in southern New South Wales announced three weeks ago with Babcock and Brown that it will build a 150 million-litre ethanol plant alongside its 55 000-head feedlot. It seems to think there is a good fit between both of those things. Certainly about 12 months ago we looked at purchasing a facility in Morris, Minnesota, and 5 miles each side of it, it had two 5000-head feedlot dairies. There was an ability for the integration of intensive livestock systems, and we see that as a real plus. These facilities will bring more development as we go further forward.

Mr DRUM — Stewart, obviously you are not bound to end up in Swan Hill — you could end up in Nebraska or anywhere. Was thought given to Western Australia, with the huge surplus of grain they grow over there?

Mr RENDELL — We are still looking at two sites, and our West Australian development manager is doing that. Michele and I did a tour of the Kimberleys with him, and in Western Australia we looking at one site north of Perth and one site to the south-east. Water is a big issue. Getting that volume of water that is not salty on a daily basis is paramount. The other thing we did when we looked at the map, we initially looked at Port Augusta to Mackay. Some 90 per cent of the population is in that region and obviously 90 per cent of the petrol gets used there, so it makes sense to start there.

The other important thing was irrigation — having that drought-proofing mechanism in there — and, as Michele rightly said, in Swan Hill we have the irrigation areas to the south and to the east, and the other three sites we are developing in New South Wales also have significant irrigation areas. And we need to do that as we start into this new business. I do not think we want to go to Western Australia and have a couple of droughts in a row.

Mr DRUM — Michele, are some of those projects you spoke about, where you might need a bit of outside help in relation to road infrastructure, significant?

Ms GRAHAM — By 'significant' you mean?

Mr DRUM — Are the roads wide enough, bituminised enough?

Mr RENDELL — No.

Mr DRUM — Have you identified the amount of — —

Mr RENDELL — Yes, we are working through that with the government at the moment. The applications are going in as we speak. We are certainly looking forward to a contribution from the government.

Mr DRUM — Have you done projections on potential jobs or employment?

Ms GRAHAM — We are looking at about — 30 people per plant is the number of jobs we expect to be involved, and obviously a significant greater number during the construction phase of the project.

Mr HILTON — You mentioned that one of the by-products of an ethanol plant is wet distillers grain. We have had some evidence before, and I would like to read it to you verbatim and have your comment:

Wet distillers grain has a high moisture content (more than 75 per cent) and is not in a form suitable for use within the commercial stockfeed industry. This material is unstable due to further fermentation and needs to be fed to animals within one to two days after

production. Distillers grains will primarily be utilised as wet product by feedlots and dairies in close proximity to ethanol plants. There is a low capacity to transport this wet material longer distances due to its low nutritional value as a wet product.

Do you have any comment on that?

Ms GRAHAM — Initially, my understanding from the tours I have done of ethanol plants in the United States is that wet distillers grain can be used for about up until a week after it has been produced. We have contracts in place for that to be used in areas that are fairly local to the Swan Hill region, so we do not see that as an issue. But whoever said that is correct, in that the advantage of converting that to dry distillers grain is that you have a much longer shelf life for it. You can use it for over a year, I understand; you can store it. Stewart can probably tell you a bit more about the actual nutritional content of the product.

Mr RENDELL — When we compare apples with apples on a dry basis we are looking at 11 per cent megajoules of energy out of distillers grain, and barley has 12 — and this is from a feed test out of Hamilton. From a protein point of view barley has about 12 per cent protein and distillers grain has 26 per cent. That is comparing apples with apples on a dry basis.

We have gone forward with a group which handles over 500 000 tonnes of wet co-product per annum in this state. When you consider Swan Hill, to the south you obviously have 8000 dairy farmers who are looking for a protein source on a wet basis. They have also sold that into feedlots to the east, and currently they move distillers grain from Abbotsford, wet, 400 kilometres to Yanco, wet. So obviously there are some people who want it out there. We have done that with that group and are very comfortable with where we sit.

The CHAIR — Thank you very much for your time today.

Ms GRAHAM — It is a pleasure.

Witnesses withdrew.