ECONOMIC DEVELOPMENT AND INFRASTRUCTURE COMMITTEE

Inquiry into Mandatory Ethanol and Biofuels Targets in Victoria

Melbourne — 31 July 2007

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Mr D. Goldman, Managing Director; and

Mr D. Vinson, Technical Director, Axiom Energy Ltd.

The CHAIR — I welcome Mr Danny Goldman and Mr David Vinson to the public hearings of the Economic Development and Infrastructure Committee's Inquiry into Mandatory Ethanol and Biofuels Targets in Victoria. All evidence taken today is taken under parliamentary privilege, so you are free to say what you wish inside this room with that privilege. Anything you say outside obviously is not covered by parliamentary privilege. Could I ask you each to state your name and business address and, if you are attending on behalf of an organisation, state your role within that organisation.

Mr GOLDMAN — My name is Danny Goldman. I am the Managing Director of Axiom Energy Ltd. Our address is level 12, 10 Queens Road, Melbourne.

Mr VINSON — David Vinson, Technical Director of Axiom Energy, same address — level 12, 10 Queens Road, Melbourne.

Mr GOLDMAN — Many thanks for this opportunity to address the inquiry. What I have done is handed out a written submission. I will not be going through all aspects of it because a fair amount of it is background. I will be concentrating in this presentation, though, very much on the terms of reference, and particularly mandating. Before I do so, I would like to just touch on Axiom Energy and who we are and what we do.

We are an Australian energy business. We are focused on producing renewable fuels and other environmentally enhancing energy products. We are headquartered in Melbourne. The company is driving alternative fuel projects, which will contribute to meeting the growing demand for renewable fuels. Our first project will see the company becoming the leading producer of biodiesel in Victoria using renewable plant oils and animal fats.

In May 2006, the company announced the first of its liquid fuel projects with the planned establishment of a biodiesel manufacturing facility located at Geelong port. The manufacturing facility will have a capacity to produce 150 million litres of biodiesel per annum, and we will be making that from renewable plant oils and animal fats, and we have the capacity to double that production capability. On completion, the company's biodiesel manufacturing facility at Toll Geelongport will be one of the largest in Victoria. With production scheduled to commence by the third quarter of 2008, it will be one of the first Victorian producers to market biodiesel on a large commercial scale.

Toll Holdings — now called Asciano Group — has supported the project by providing Axiom Energy with a long-term lease for a 1 hectare site, and Terminals Pty Ltd is providing facilities for the handling and storage of bulk liquid feedstock and product. The combined investment in the Geelong region will total approximately $50 million and will be made up of Axiom Energy's biodiesel manufacturing facility as well as investment in expanded storage facilities by Terminals. The project will employ directly and indirectly 40 people in the Geelong region. This is before the construction-related jobs that will be created by the building of the facility as well as the dedicated storage infrastructure to be provided by Terminals.

I am going to move on now to the merits of a mandated target for biodiesel; in the presentation it is page 6. In the absence of appropriate market pricing signals — for example, carbon taxes — no biodiesel industry around the world has managed to exist and flourish without government intervention. This government support traditionally includes capital grants, incentives, tax offsets and mandating or a combination of the above.

Most of the international biodiesel success stories have occurred with a well-structured government support package that changes over time with the development of the industry. The European Union is seen as a world leader in biodiesel production, and it would be sensible to look at the development of the industry in the EU specifically related to the government support and mandates.

The current EU legislation dictates that EU countries need to achieve 2 per cent biodiesel content in their diesel fuel by 2005, and then they need to increase that level by 0.75 per year through to 2010, at which time biodiesel must account for 5.75 per cent of the diesel pool based on energy content. This translates to the equivalent of about 6.3 per cent on volume. Additionally, EU leaders have agreed in principle to raise the proportion of biofuels to 8 per cent by 2015.

The actual volumes of biodiesel produced in the EU in 2006 increased 54 per cent over 2005, and a total of 4.9 billion litres was produced. In the middle of this year — 1 July 2007 — total capacity in the EU was sitting at over 10 billion litres, and that was up from 6 billion litres the previous year.

I now concentrate on two countries in the EU that have made specific progress in regards to biodiesel; firstly, France. France is one of the EU leaders in the drive to develop biodiesel for transportation use. The French Government was one of the first to mandate biodiesel use in diesel fuel and in fact implemented a plan to do so on track with the EU directive. Recently France even announced its intention to accelerate the entire plan. The new goals are to achieve the EU directive levels by 2008 plus additional targets of 7 per cent biodiesel by 2010 and 10 per cent by 2015. It has also established a preferred excise tax rate for biodiesel, which involves a reduction of €0.33 per litre. During 2006 France produced 743 million litres of biodiesel.

The second country I would just like to mention is Germany. It has really shown leadership in the development of biofuels. The country very recently put in place a compulsory quota requiring 4.4 per cent biodiesel content in diesel starting in 2007 and continuing through to 2009. In 2010, Germany must use a minimum of 5.75 per cent by energy content in its diesel fuel. These quotas are tradeable, so blenders using more than the required minimum amount may choose to sell their excess quota to those not able to achieve their minimum requirement.

Germany has had a full excise tax exemption for biodiesel, which was to be effective until 2009. However, the financial strain of the sheer volume of biodiesel that was produced was too large, and the ruling coalition government has now dictated that a tax of €0.09 per litre will be levied on neat biodiesel, starting on 1 August last year and increasing by €0.06 per litre until 2011. In summary, Germany waited until there was sufficient existing and planned biodiesel production capacity, and then the government reduced its financial support to the industry but at the same time introduced compulsory quotas or mandates. During 2006, Germany produced 2.6 billion litres of biodiesel.

Moving to Australia, before identifying whether the Victorian Government should introduce mandates, it is important to understand the current Federal Government support package. Firstly, with respect to the 2010 biofuels target and capital grant scheme, in 2003 the Federal Government adopted a policy target of 350 million litres of biofuels by 2010. In support of this target, one-off capital grants totalling $37.6 million have been made available by the Australian Government to projects for the construction of new biofuels plants.

Secondly, there is a cleaner fuel grants scheme, and this is one of the main drivers for the industry. In effect, it is a current effective excise redemption of 38.143 cents per litre provided for by diesel production. The Cleaner Fuel Grants Scheme offsets excise or customs duty paid, so the effective rate of excise for biodiesel is zero. To receive the rebate on the excise, the biodiesel produced is required to meet the Australian standard. This rebate will remain in force until 1 July 2011 when the rebate reduces over five years until the effective excise rate reaches 19 cents per litre from 1 July 2015. This is half the excise rate applicable to low-sulphur petroleum diesel.

The CHAIR — Mr Goldman, before you go any further, are you intending to read most of what you have prepared for us?

Mr GOLDMAN — That was my intention.

The CHAIR — It is not entirely up to you, but I would respectfully suggest that it would be better to go to either the key point under each heading or give us a few minutes to scan what you have given us and then summarise what you think are the key points. Looking at this submission, I do not think we are going to get the best use of our 40 minutes just with you reading it.

Mr GOLDMAN — My preference would be to touch on some of the major points. Obviously you have the full copy to read yourselves afterwards at your leisure.

The CHAIR — In that way we can flesh out what we want further information on, so that when we are making recommendations we are clear on what you have as your key points.

Mr GOLDMAN — Okay. The last bit of the government package of legislation is the Fuel Tax Act that is in place. In effect, what that means is that biodiesel needs to be blended with normal diesel, and the resulting blend needs to meet the Australian diesel standard. If that is in place, users of biodiesel will get the full credits afforded to other users of diesel fuel.

I quickly want to touch on the size of the diesel market in Victoria. Victoria is the second-largest state when it comes to petrol, after New South Wales. But when it comes to diesel we are the fourth-largest state as far as diesel usage goes. We use about 2.6 billion litres of diesel a year.

I will get onto mandating now. Mandating will obviously be beneficial for both users as well as producers of biodiesel. One way is to give grants to people to actually use the fuel. We are not suggesting that that is the best way to do it; we are suggesting that the best way to do it is to mandate the use of biodiesel. What is a prerequisite, however, is that there have to be strict quality controls in place. In the industry, as I mentioned earlier, there are Australian standards for biodiesel that have to be met. In addition to that, when you use a blend, the blend needs to meet the Australian standard for diesel so through these two requirements the production of quality biodiesel will be enforced.

One of the questions asked was, 'What are the merits of mandating here in Victoria?', so I just want to touch on the merits. Firstly, the greenhouse gas reductions in Victoria will be substantial. Victoria uses about 2.6 billion litres of diesel. A 5 per cent mandate would require that 129 million litres of biodiesel would be the minimum used in Victoria. The greenhouse gas reductions in using that amount will be about 280 000 tonnes of CO_2. That is equivalent to taking approximately 46 000 passenger cars off the roads in Victoria by introducing a 5 per cent mandate here in Victoria.

The second point, as far as the merit for mandating goes, is investment and job creation. Just to use Axiom Energy, as an example, we are spending, as I mentioned earlier, $50 million. We are creating 40 direct and indirect jobs in the Geelong region. But the biggest potential is the knock-on effects for Victoria's farmers. Local oil crop demand will be far greater, and there is a lot of debate around food crops being used for fuel. We see now a great demand for Victorian farmers to actually grow local feed stocks to be used for biodiesel production.

Another merit of biodiesel mandating will be that biodiesel producers will have a ready market for their product. A lot of people are holding back on investment because they do not necessarily see that ready market. When mandating is in place, there will be a ready market for the product, and investment will actually be there to support the industry.

The other last merit of introducing biodiesel is that there is little or no cost to state government in introducing a biodiesel mandate in that the final user is the one who actually pays for the end cost of the fuel.

Mr DAVIS — What is the cost to the economy, though? There might be less state government cost, but is there a cost to the economy, do you think?

Mr GOLDMAN — Our intention is to sell biodiesel at a very equivalent price to normal mineral diesel. We do not see our biodiesel being more expensive than mineral diesel. At the same time it will allow users to use biodiesel at no additional cost, but get the environmental benefits of actually using the fuel. We do not see there being an additional cost to the Victorian community.

Mr DAVIS — To pick up Mr Thornley's question from earlier, why would it not happen anyway?

Mr GOLDMAN — I think with any introduction of any product into any market there is always consumer reluctance to accept it. I would think that the experience of using some of the other biofuels has maybe scared people off from using it. We have trialled our biodiesel — or a similar biodiesel to the biodiesel we will be actually producing — with big users, big transport companies. Having just used them in the trial, they are very keen to actually adopt using the biofuels. I think there needs to be a whole education, a whole push, and, I suppose, government and industry coming together to bring on how that actually happens. That is one of the recommendations I will get to.

Some of the issues relating to mandating is around timing. The challenge is, if you mandate without a production facility or capacity in your state, it is going to force people to import or take biodiesel from other states. That is a challenge; you need to actually set the timing of the mandate sensibly to allow people to create the capacity to be able to fulfil that mandate.

Mr DAVIS — So that is a lead time?

Mr GOLDMAN — That is a lead time issue. In the last inquiry, there were two concerns relating to mandating that were raised then, which I would just like to address. One is constrained supply. The issue raised was that mandating implemented too early will force the importation of biodiesel. We plan on building 150 million litre plant. Energetix has a plant that can produce up to 12 million litres, and Biodiesel Producers Limited are building a facility for up to 60 million litres. Those are some of the main producers. I did mention that a mandate of 5 per cent

is 129 million litres and this capacity of over 220 million litres. So we do not see constrained supply as being an issue.

The second issue is the lack of feedstock availability. There was a whole paragraph around the amount of tallow in the state and that the tallow could be used to produce a fair amount, or over 100 million litres of biodiesel. Unfortunately a lot of that tallow is used for other purposes, so we do not see that as being an answer to the feedstock needs in the state. There is not at the moment a sufficient quantity of locally produced feedstocks for the Victorian biodiesel industry, which is going to mean in the short term that importation of the feedstock will be necessary.

However, we see that this creates an incredible opportunity for the local farming community. There are a lot of new crops that are coming out that people are talking about that do not compete in the food chain, a lot of traditional feedstocks that could be grown locally, and we see that as a great opportunity. There is a ready market — over 200 000 tonnes of feedstock are needed. That is a great opportunity for the local farming community.

One of the questions raised is: should a mandate be 5 per cent by 2010, 10 per cent by 2015, or otherwise? We have looked at the global experience. Globally the most common percentage used for mandating is 5 per cent. There are states in America that started at 2 per cent, but mainly due to the lack of production capacity in those states. Most markets have rationalised 5 per cent as being a blend that balances producers' and communities' wishes. A lot of big users of fuel push that higher by using higher blends and if you mandate, it does not stop one using higher blends as well.

It is our view that we should introduce the mandate. Our date that we have suggested, which would allow producers to be able to supply, is 1 January 2010, and we are suggesting a biodiesel mandate of 5 per cent to be used with, or in place of, normal diesel. On page 13 are specific measures required by government to facilitate this alternative fuel industry. Firstly we would like to see state governments lobby the Federal Government to continue and extend the fuel tax excise grants for biodiesel and secondly, we would like them to ensure and promote quality standards of biodiesel blended fuels to instil consumer confidence in the product. We would like to promote the Victorian government's leadership in the purchasing of biodiesel blends to run government fleets and public transportation.

I have mentioned the introduction of a 5 per cent mandate for all diesel used in Victoria, and the date for this introduction is recommended as 1 January 2010. We also suggest that the Victorian Government lobby the Federal Government to mandate biodiesel nationally. We would like to see an education campaign to promote consumer and market confidence, and the biodiesel industry to work with Federal Government and fuel companies to provide greater assurance to the motoring public that biodiesel is safe when it adheres to appropriate standards.

We would also like to see some funding of research into the biodiesel sector and our suggestion there is to target that funding to support the development of research into Victorian feedstock farming capabilities for use in biodiesel production. We also suggest facilitating joint industry and government collaboration in new biodiesel related technologies.

Those would be the specific suggestions that we have for the Victorian Government to take on board, and those are summarised on page 13 of the presentation.

Mr DAVIS — Can I just pick up a point in your submission that you have gone over, partly I think at the Chair's instigation? Would you just expand on these power generation mandates a little bit — whether you think that is a feasible option for Victoria and what place biodiesel could play in perhaps peaking power?

Mr GOLDMAN — We have not got the data around power generation. We do know, though, from looking at offshore examples that biodiesel has been mandated for power generation offshore, especially where diesel is used, in certain states in the USA. And it is our preference that we ask the Victorian Government, for the producers to actually do a review before making a recommendation, so we have not made a strong recommendation either way.

Mr VINSON — Just a bit of background on that: in, say, California they have a mandate to use 10 per cent of power to be produced by renewable means so they are able to run gas turbines, the existing infrastructure, with biodiesel, and that is a way without any additional penalty in capital cost.

Mr DAVIS — So a gas turbine can be run on it?

Mr VINSON — A jet engine — basically a gas turbine is a jet engine — that producers hooked up to a generator to make electricity, and a gas turbine can be fitted to run on biodiesel. So you can basically run a jet engine on biodiesel.

The area that we would see targeted could be more, as you mentioned, in the peaking plants. There are some diesel plants that run off standard diesel engines, and they could be used where simply you use a blend of petroleum diesel with biodiesel to make sure that it meets the Australian diesel standards, so you get all the benefits of the credits; and again there are no issues in terms of runability with a blended product.

As Danny said, we are not experts in that area, it is something we believe is available and again, one of the advantages, if you are looking at peaking stations, particularly the cost of fuel is not a consideration to the generator that they can argue that there are any issues in cost there. The money they are getting in return for the kilowatts far exceeds the fuel cost.

Mr DAVIS — Absolutely!

The CHAIR — In two places you have referred to quality standards. I would ask you, given there are quality standards, how often do inspections occur to verify that the standards set are actually kept?

Mr VINSON — I could answer that, from our end first, we are not in production so we do not have the hands-on experience. The understanding we have is that it is a self-regulating system to begin with, that the government has standards in place, there are specific tests for biodiesel parameters, and that is required to be done to make sure that when you take a sample, that complies with the Australian standard for biodiesel.

From what we have heard it is administered by the tax office on behalf of what was the Department of Environment and Heritage and they are at liberty to come in and take grab samples whenever they feel like an audit situation. They often ask producers to send in faxes of their test certificates to put on file. The system, as we understand it, is a case of keeping records, similar to a quality system where you are required to be able to be audited and show that on an ongoing basis you are doing battery tests to make sure you are meeting the specific standards.

The CHAIR — It is self-regulation, no exterior?

Mr VINSON — With external audit requirements.

The CHAIR — Yes, but they are based upon the self-regulation figures?

Mr GOLDMAN — There are government standards that have to be met, it is then self-regulated, thereafter.

The CHAIR — Do you think that is part of the problem of people feeling confidence in the industry?

Mr VINSON — I do not feel that the quality side is the major issue. As mentioned about ethanol, it has had some scare campaigns and glitches out there but in terms of one of the advantages of biodiesel, that it is totally blendable with petrodiesel, you do not have any issues, and it is generally acknowledged world-wide that it is a usable product.

The CHAIR — I was not having a go at you. I was talking about, shall we say, what had been put to us, without being any more specific, that it is a significant problem when you do not have external verification of the standards because it is entirely an honour system.

Mr VINSON — If you look at how our plan to get it into the market is, which partly ties in with our mandating suggestion, is that we see biodiesel as a component of petrodiesel, so we are not out there saying we sell 100 per cent biodiesel. Our aim is to have it seamlessly integrated into the current petroleum infrastructure, which means your refineries, main oil companies and main distributors will be ensuring that that product meets the Australian standard for diesel.

This is the point about the Tax Act, that at one level you have to meet the Australian standard for biodiesel in order to get the Cleaner Fuel Grant Scheme offset of 38.1 cents per litre. Then if we sell that into major refineries and blenders, they will have to ensure that that blend still meets the petroleum diesel specification in order to sell that

into the market and allow all the users to claim their benefits of the Fuel Tax Act. In one sense our proposal for selling it into the market already has the regulations in place, which is if you trust the oil company mechanisms for control on quality, we are going to integrate into that and they will become the group that actually manages that.

Mr THORNLEY — I have one really dopey question, you will forgive me for this: is the greenhouse gas emission reduction because of the way the biofuel is utilised, or is that because it comes from a renewable source and you are taking credit for the greenhouse gas reductions of the original growth of feedstock?

Mr GOLDMAN — The figures I quoted look at the entire life cycle from growing the crops to producing the biodiesel and then using the biodiesel. When you look at that life cycle and compare it to the same life cycle for petroleum diesel, then you will see the reductions that were mentioned in the presentation.

Mr THORNLEY — Locating it at Geelong, is that for proximity to the refineries so you can get the blending in, or is that for proximity to imported food stock?

Mr GOLDMAN — Through our studies and looking at overseas examples of successful biodiesel producers it was clear that one needs to have flexibility built into the model. Because of that we have seen locating a facility close to a single feedstock as not the model that we want to go ahead on. We see flexibility as being important.

Being located on a deep-sea port with a very good road infrastructure, rail infrastructure surrounding us and a very good ship-to-shore interface that already exists allows us that flexibility for both. If necessary, as I said, in the short term the importation of feedstock between local feed stocks come on stream, we will be able to rail it in or use the road infrastructure to get it in. In addition to that we are located close to the largest oil refinery in Victoria as well.

Mr THORNLEY — Can I just understand the economics of the imported feed stocks versus what might be grown here? If we are talking palm oil or whatever, what sort of crops would we grow here that would be competitive with that sort of feedstock? I have no idea what the economics of either of them are.

Mr VINSON — First of all in terms of the global markets, there have been some significant changes in the last year where feed stocks have gone up around the world. If you look at the Victorian market, there is canola grown and there is tallow available as the two main oils and fats. In terms of canola on today's modelling, it is too expensive. Basically the world cost for crude canola oil is over $1200 per tonne. If you have got fuel where your target in terms of what we see is around $1 per litre, you cannot put something at $1200 in and get $1 out. That is challenging in terms of the canola model from a large-scale facility.

Tallow certainly provides for competitive opportunities, and as Danny had flagged, there are limited supplies within the state. Within Australia there are certainly larger volumes, particularly up in Queensland, so there are opportunities still to bring tallow into Victoria. Tallow certainly is a competitive product.

When you look at palm today it is close to $1 in its own right, but given the other ingredients that go in, you can afford to produce. In our case we are looking at a blended product. A blend of, say, palm oil and tallow even in today's economics with the oil price where it is, where the commodities are where they are, provides for an economic opportunity for production. That is sustainable to get going.

Moving to your question about what you would grow here, we are looking more at the non-food-energy crop. Our concept is to take land that is available — in fact, even potentially more arid land or saltier soils — and that typical food crops cannot be grown in, unlock those tracts of land and then grow new crops. This is where we feel that not only will biodiesel be mandated but the opportunity will also be created for the farming community to embrace a new industry, which is non-energy-food crops.

Mr DAVIS — What crops?

Mr GOLDMAN — Can I mention a few?

Mr VINSON — Yes.

Mr GOLDMAN — One crop that is spoken about quite a bit in the literature is a crop called jatropha. It is grown mainly in Asia and in Africa. It is a product that cannot be used for food production. It is a seed, and it has a very high oil content. The issue here in Australia is that in certain states it is considered a noxious weed, so there

are issues relating to that. In addition to that there is not currently, I understand, a mechanical harvesting technique for jatropha. So it is really well suited for countries where it is used for poverty eradication with the manual picking of the product.

In Australia research is being done into two crops that we know about — pongamia and moringa — and a fair amount of work is happening in the algae area as well, whereby algae could be grown and then its oil content used as a biodiesel feedstock. Just coming back to one of the things that could happen with the Victorian farming community: there could be opportunities to grow even a food product, but to decommoditise it — so not link it to the world market but give farmers a contract for a certain period of time so they know they have a customer at a fixed price that makes sense to both the farmer as well as the biodiesel producer. At the moment, as David has said, if canola is $1200 a tonne, you cannot make biodiesel economically using it. So to decommoditise by giving a long-term contract to certain farmers may be an option.

Mr THORNLEY — And then you hedge the oil price?

Mr GOLDMAN — Correct.

The CHAIR — By that do I take it that in order to obtain a long-term contract, it would be less than $1200 a tonne to secure your supply?

Mr GOLDMAN — Correct.

Mr VINSON — That $1200 is a world-market-driven price. We are not experts in growing crops, but if you look at the cost generally, it would be fairly stable; it is really what happens on the world markets that dictates the sales price. There would be an opportunity, for instance, for a farmer to lock away a percentage of their land into a contract growing situation, where one year they would be sorry they could have made more, but other years they would be very happy. If they are prepared to lock away, it means they have steady income, as Danny said, and they do not have to ride out the ups and the downs.

The CHAIR — I have one question in relation to reports that you were thinking of producing low-sulphur diesel. Are you familiar with that?

Mr VINSON — Our reports?

The CHAIR — No, there were reports of your company.

Mr VINSON — Yes, our previous.

The CHAIR — Yes, on producing low-sulphur diesel from waste plastics.

Mr VINSON — Yes, from waste plastics.

Mr GOLDMAN — From waste plastics.

The CHAIR — They would end up in landfill, anyway. Has that progressed any further, or at this point have you decided against going down that path?

Mr VINSON — It has stalled because we have not got anywhere with the Federal Government. With the change to or the introduction of the Fuel Tax Act the fuel manufactured from waste plastic became fully excisable. So unlike with a biodiesel or ethanol that gets a benefit, the government changed — which was originally in place when we were going to do it — the legislation to capture fuel made from waste plastic. It is now considered a fully excisable product and therefore the economics, by the time you collect it and produce it, are not viable.

The CHAIR — Do you have any recommendations that a state parliamentary committee might like to offer to the Federal Government, of whatever complexion it happens to be in the future?

Mr GOLDMAN — Specifically related to that?

The CHAIR — Anything you like. Or would you like to take it on notice?

Mr GOLDMAN — No, one of the suggestions that I did mention was the extension of the excise offsets because by 2011 they start to reduce, and in 2015 they are half of what petrol would be. Pushing the Federal Government to extend those will help the biofuels industry get on its feet. David, have you anything else?

Mr VINSON — No. We have taken it on notice so we have an opportunity to come back. Thank you.

The CHAIR — Thank you very much for attending. We appreciate the effort you have gone to in preparing your submission and in giving us your time. Within a fortnight you will get a copy of the transcript. You can change any typographical errors but of course, the content cannot be changed.

Mr GOLDMAN — Thank you very much, we appreciate the opportunity.

Committee adjourned.