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SENATE

SELECT COMMITTEE ON FUEL AND ENERGY

Reference: Issues relating to the Fuel and Energy Industry

FRIDAY, 20 FEBRUARY 2009

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SENATE SELECT COMMITTEE ON

FUEL AND ENERGY

Friday, 20 February 2009

Members: Senator Cormann *(Chair)*, Senator Hutchins *(Deputy Chair)*, Senators Bushby, Fifield, Joyce and McEwen

Senators in attendance: Senators Bushby, Cormann, Farrell, Hutchins, Joyce, Ian Macdonald

Participating members: Senators Abetz, Adams, Arbib, Barnett, Bernardi, Bilyk, Birmingham, Mark Bishop, Boswell, Boyce, Brandis, Carol Brown, Cameron, Cash, Colbeck, Jacinta Collins, Coonan, Crossin, Eggleston, Farrell, Feeney, Ferguson, Fielding, Fisher, Forshaw, Furner, Heffernan, Humphries, Hurley, Johnston, Kroger, Lundy, Ian Macdonald, McGauran, McLucas, Marshall, Mason, Milne, Minchin, Moore, Nash, O'Brien, Parry, Payne, Polley, Pratt, Ronaldson, Ryan, Scullion, Stephens, Sterle, Troeth, Trood, Williams, Wortley and Xenophon

Terms of reference for the inquiry:

To inquire into and report on:

a. the impact of higher petroleum, diesel and gas prices on:
   - i. families,
   - ii. small business,
   - iii. rural and regional Australia,
   - iv. grocery prices, and
   - v. key industries, including but not limited to tourism and transport;

b. the role and activities of the Petrol Commissioner, including whether the Petrol Commissioner reduces the price of petroleum;

c. the operation of the domestic petroleum, diesel and gas markets, including the fostering of maximum competition and provision of consumer information;

d. the impact of an emissions trading scheme on the fuel and energy industry, including but not limited to:
   - i. prices,
   - ii. employment in the fuel and energy industries, and any related adverse impacts on regional centres reliant on these industries,
   - iii. domestic energy supply, and
   - iv. future investment in fuel and energy infrastructure;

e. the existing set of state government regulatory powers as they relate to petroleum, diesel and gas products;

f. taxation arrangements on petroleum, diesel and gas products including:
   - i. Commonwealth excise,
   - ii. the goods and services tax, and
   - iii. new state and federal taxes;

g. the role of alternative fuels to petroleum and diesel, including but not limited to: LPG, LNG, CNG, gas to liquids, coal to liquids, electricity and bio-fuels such as, but not limited to, ethanol;

h. the domestic oil/gas exploration and refinement industry, with particular reference to:
   - i. the impact of Commonwealth, state and local government regulations on this industry,
   - ii. increasing domestic oil/gas exploration and refinement activities, with a view to reducing Australia's reliance on imported oil, and
   - iii. other tax incentives; and

i. the impact of higher petroleum, diesel and gas prices on public transport systems, including the adequacy of public transport infrastructure and record of public transport investment by state governments.

WITNESSES

BEAMES, Mr Ross Morris, Member, Biofuels Association of Australia **38**

FURZE, Ms Susan Jane, Senior Transport Economist, Royal Automobile Club of Queensland **2**

HARRISON, Mr Bruce John, Chief Executive Officer, Biofuels Association of Australia **38**

ROCHE, Mr Michael Anthony, Chief Executive, Queensland Resources Council **25**

ROTH, Mr Michael Tony, Executive Manager, Public Policy, Royal Automobile Club of Queensland **2**

RYNNE, Mr David, Principal Adviser, Industry Policy, Queensland Resources Council **25**

THORPE, Mr Simon Christopher, General Manager, Safety Systems, Virgin Blue Airlines **12**

TOPHAM, Mr Frank, Manager, Government Affairs and Media, Caltex Australia Ltd **49**

WHITE, Mr David Saville, Environment Program Adviser, Virgin Blue Airlines **12**

Committee met at 8.57 am

CHAIR (Senator Cormann)—I declare open this public hearing of the Senate Select Committee on Fuel and Energy. The Senate has referred to the committee matters associated with fuel and energy, including the price of fuel, the impact of an emissions trading scheme, regulation and taxation arrangements and alternative fuels. The committee is due to report to the Senate on 21 October 2009. Today the committee is focusing mainly on the impact of an emissions trading scheme. We do intend to release an interim report in the near future. I welcome you all here today.

This is a public hearing and a *Hansard* transcript of the proceedings is being made. Before the committee starts taking evidence, I remind all witnesses that in giving evidence to the committee they are protected by parliamentary privilege. It is unlawful for anyone to threaten or disadvantage a witness on account of evidence given to a committee and such action may be treated by the Senate as a contempt. It is also a contempt to give false or misleading evidence to a committee. The committee prefers all evidence to be given in public, but under the Senate's resolutions, witnesses have the right to request to be heard in private session.

It is important that witnesses give the committee notice if they intend to ask to give evidence in camera. If a witness objects to answer any question, the witness should state the ground upon which the objection is taken, and the committee will determine whether it will insist on an answer, having regard to the ground which is claimed. If the committee determines to insist on an answer, a witness may request that the answer be given in camera. Such a request may, of course, also be made at any other time. I would also ask witnesses to remain behind for a few minutes at the conclusion of their evidence in case the Hansard staff need to clarify any terms or references.

I remind people in the hearing room to ensure that their mobile phones are either turned off or switched to silent. Finally, on behalf of the committee, I would like to thank all those who have made submissions and sent representatives here today for their cooperation in this inquiry.

[8.59 am]

ROTH, Mr Michael Tony, Executive Manager, Public Policy, Royal Automobile Club of Queensland

FURZE, Ms Susan Jane, Senior Transport Economist, Royal Automobile Club of Queensland

CHAIR—I welcome Mr Roth and Ms Furze from the Royal Automobile Club of Queensland. I invite you to make a brief opening statement and then the committee will ask questions.

Mr Roth—Thank you, Senator. RACQ appreciates the invitation and opportunity to address the Senate select committee and we are happy to provide any information we can today. The RACQ is Queensland's peak motoring organisation with 1.2 million members. They look to us to represent their interests on a broad range of motoring matters, many of which relate to fuel. So while we acknowledge the scope of your terms of reference, our emphasis today is on issues of most concern to our members, such as the price and availability of fuel, the environmental impact of cars and the long-term sustainability of motoring.

The RACQ provides detailed information to our members on these and other topics as well as a comprehensive fuel advisory service through the RACQ website. Our research shows that 80 per cent of our members are concerned about the impact their driving has on the environment. The RACQ also recognises the adverse effects of greenhouse gas emissions and believes it is important to reduce the environmental impact of cars. We do, however, stress that this needs to consider the important contribution of cars to the lifestyles of our families, the connectivity of our communities and the vitality of our economy.

Australia is a car-dependent nation and will remain so into the foreseeable future. Car trips make up over 75 per cent of all passenger travel and are an energy-intensive form of transport. Even so, many people overstate the contribution of cars to climate change, because CO_2 reductions from any sector often get reported as equivalent to taking a certain number of cars off the road. In fact, private motor vehicles make up around eight per cent of Australia's greenhouse gas emissions. The RACQ recognises the need to reduce carbon emissions in all sectors, including transport, and we are publicly active in this area.

Last year the RACQ worked with the Australian Automobile Association and other state motoring clubs to publish a climate change statement called *On the Road to Greener Motoring*. The objectives include to assist motorists to reduce their vehicle's greenhouse emissions, to encourage sustainable mobility for all, and to advocate improved policies and initiatives from government and industry. We see leadership from our governments and our industries as essential if we are going to maximise opportunities to reduce transport emissions. These include putting greater investment into fuel and vehicle technology, improving CO_2 emission standards for vehicles, managing urban congestion and establishing a more efficient system of vehicle and motoring taxation.

We appreciate that the government has been active in supporting the local automotive manufacturing industry through mechanisms such as the Green Car Innovation Fund to encourage the manufacture of low emission vehicles. To date, however, there have been no substantial government initiatives focused on modifying vehicle purchase choices. Initiatives such as purchase rebates for very fuel efficient cars have the potential to improve the average fuel efficiency of our vehicle fleet over a number of years. Government modelling has shown that improvements in vehicle fuel efficiency will be the main means to reduce emissions from road transport.

The RACQ believes that monetary incentives and behavioural strategies are both important to the task of reducing transport emissions. We have, therefore, embraced the principle of eco-driving as a way to assist our members to drive more smoothly and fuel efficiently. We are developing an eco-drive program that informs and supports drivers in their efforts to reduce fuel consumption simply by changing the way they drive. Every motorist can take action to reduce greenhouse gas emissions without needing to buy a new car. Our research suggests eco-drive programs are relatively inexpensive and could reduce vehicle emissions by an average of 10 per cent. This is roughly comparable to the reduction you would get from doubling the use of public transport and certainly much less costly. To date, the RACQ is not aware of any Commonwealth programs that support initiatives such as eco-drive.

The ideas I have briefly mentioned are all detailed in submissions available on our website. I encourage the committee to consider these as effective mechanisms to reduce greenhouse emissions.

The government's Carbon Pollution Reduction Scheme is scheduled to start in 2010. This will add a carbon cost to the price of fuel. For the first three years of the scheme, the government has committed to reducing the 38c a litre fuel excise to offset the carbon charge. We support this mechanism as it will offer relief to those households that cannot access walking, cycling or public transport alternatives and are dependent on driving. The CPRS, however, will not reduce driving or greenhouse emissions. The RACQ understands that after the first three years the fuel excise will be set at the rate based on the carbon price at the time and then subsequent increases in carbon costs will flow through to motorists. At this time, any real fuel price increases will still result in little change to total emission levels due to the low demand elasticity of fuel. Demand for fuel is relatively inelastic, and therefore any increase in fuel price only leads to a small decrease in consumption.

In order to effect change and reduce transport emissions, additional policies and incentives will be needed along with reforms to the current system of taxes and charges imposed on motorists. The CPRS and the current Commonwealth taxation review provide a platform to restructure motoring taxes into a fairer and more efficient system. Such a system would see revenue being returned to motorists through greater provision of transport infrastructure and some fixed taxes replaced with variable user-pays charges.

This type of reform could also support the development of biofuels without the need for inefficient government mandates that increase consumer costs while reducing choice. At present we have a system where fuel excise raises around $14 billion from motorists each year. Less than a third of this is returned to fund road infrastructure. At the same time, private motorists are being overcharged in comparison to other fuel users. While heavy vehicles receive a rebate that

reduces their fuel excise to 21c a litre and miners and farmers claim fuel tax credits up to the full excise amount, private motorists receive none of this price relief.

The RACQ has a long-held view that the government should replace existing federal and state road taxes with a more efficient system of road user charging. Such a system should include the full social costs of vehicle use and remove the current inequity between private motorists and other fuel users. We see the government's decision to reduce fuel excise and replace it with a more transparent carbon charge as an effective first step.

Finally, the RACQ believes that we must act to manage urban traffic congestion. Research and on-road tests carried out by us show that driving in stop-start congested traffic increases fuel consumption and greenhouse emissions by around 30 per cent. Urban transport policies therefore need to focus on congestion management through improved infrastructure, services policies and pricing strategies. Thank you. We are happy to take any questions.

CHAIR—Thank you, Mr Roth. Just to kick off, you seem to suggest in your submission, and also in your opening statement, that increasing fuel prices do not actually lead to a reduced demand. It just puts additional pressure on people's cost of living, which will affect, in particular, low income people. That is, I think, what you are saying. We have had evidence from academics and others that increasing fuel prices do change behaviour and that is one of the reasons they are arguing that fuel should be included in the emissions trading scheme right from the word go. Could you perhaps go into a bit more detail as to what sort of evidence you have got to substantiate your proposition that increasing fuel prices, because of taxes or others, do not change behaviour?

Mr Roth—Increasing the price of anything will reduce the consumption of it to some extent. Fuel is acknowledged, in the research internationally and the local research, as being quite inelastic, so an increase in fuel price will reduce the demand for fuel, but only very slightly. The short-term elasticity is usually considered as about negative 0.1, and the long-term elasticity is more in the realm of minus 0.3 to minus 0.5, and we have seen it in recent fuel price changes that changes in price have a relatively small effect on demand. There is a longer-term effect, mainly through the choices of vehicles that people purchase as they turn over their vehicles. So there is an impact, but it is minor, and motorists generally will not support any fuel price increase unless it is in a context of reductions in other motoring costs. We see other fixed costs of motoring as being excessive, so they need to be reduced if there is any desire to increase the fuel excise or other fuel charges.

CHAIR—In relation to the excise offset for liquid fuel, I suspect that you would support the excise offset?

Mr Roth—We have long argued for road user charges to replace the fuel excise so that there is a hypothecation of revenue back to the road funding and the externalities from transport.

CHAIR—But in the context of the emissions trading scheme, what is your view?

Mr Roth—In the context of the emissions trading scheme, we support the mechanism proposed to reduce the fuel excise to compensate for the carbon cost imposed.

CHAIR—Have you got a view about what the best timeframe is? Do you think that fuel should be excluded forever, or do you think it should be excluded for a limited period of time?

Mr Roth—We believe the transport sector needs to be involved in efforts to reduce greenhouse emissions, and we are comfortable with the current proposal for the three-year timeframe and then the setting of the fuel excise based on the carbon price in three years time.

CHAIR—Thank you very much.

Senator HUTCHINS—I just want to follow on from the chairman's question in relation to behaviour. Not only have we been given evidence by people involved directly in fuel and consumption, but in other areas, that by putting some sort of increased price on, that does in fact affect people's behaviour. In fact, on almost every occasion we have had bodies appear before us, they mention that term 'behaviour' all the time and they link it to increasing the price of that good or service. You are suggesting to us, Mr Roth, that that is not your experience, or am I wrong?

Mr Roth—Our experience is that there is only a very weak link between fuel price and behaviour. I think the process of fuel price increases leading up to the middle of last year and the lack of any major response in congestion—that is, congestion continued to increase in the major cities of Australia while fuel prices increased—demonstrates that there is only a very weak link between fuel price and behaviour in the short term.

Senator HUTCHINS—I dispute that, because I am from Sydney, and I know, as a result of the increased fuel prices, some of the effects of that were that trains were delayed because more people were getting on and getting off the trains because they were moving from private vehicle transport to public transport. That is still a consequence of, probably, train delays all along the east coast, I imagine. No doubt you are not making that statement, just picking it out of the sky—you have got some evidence to back up your claim that there is little relationship between price and behaviour. Do you have that? You do not need to present it to us now. If you have got it now, I would appreciate it.

Ms Furze—Yes. I actually happen to have a briefing paper from the Department of Infrastructure, Transport, Regional Development and Local Government. As Michael Roth mentioned earlier, there is international data that supports what we are saying, but this is an Australian-produced document. It actually states that, in the short term, car fuel use declines about 1.5 per cent with any 10 per cent concurrent increase in the price of fuel, and most economists do consider that, in relative terms, that is relatively weak as a response.

Just an acknowledgement of what you are saying, Senator: the paper does go on to say that there is a much more defined response in the longer term. As Michael mentioned earlier, that is much more to do with being able to, over a period of time, upgrade vehicles to be more fuel efficient rather than being able to instantly change your behaviour. Certainly in Brisbane, in the outer suburbs, and in the rural and regional areas, we do have a number of households, and certainly RACQ members, that when fuel goes up do not have the access to public transport alternatives or walking or cycling to be able to change their behaviour in response to an increase in the cost of fuel.

Senator HUTCHINS—Fair enough. There is another Senate inquiry that is being conducted into the provision of public transport. It may be something the RACQ might keep an eye on and may wish to make submissions to, because I am pretty sure these sort of issues are going to be debated out there.

Senator JOYCE—I read through your paper. I was interested, first of all, that you talk about the inelasticity of supply: when the price of petrol goes up, demand stays roughly the same. I also take on board what Senator Hutchins says. Could it be the inelasticity of supply, especially in Queensland's case, could be reflective that we do not have a substantial public infrastructure system? We do not have a substantial train network. People cannot just jump on a train, possibly like they can in Sydney, because our capacity to move large numbers of people on public transport in Queensland is much more limited than, say, Sydney.

Mr Roth—Transport infrastructure in Brisbane is stressed, no matter what mode you are talking about. The rail network is stressed. The bus network is stressed. The road network is stressed. So there is limited ability in the short term to change mode shares markedly. But Brisbane does have a well-developed public transport network that would be the envy of many cities internationally, and there are opportunities through more rolling stock and so forth to increase the public transport capacity. I believe they are doing that as quickly as they reasonably can.

Senator JOYCE—Really what I want to jump into, what I am interested in, is the juxtaposition in your paper between your position on an ethanol mandate and your support of ethanol as a long-term alternative. Obviously we all look forward to the lignocellulose transfer and second generation ethanol. We are not going to be able to get there unless we get stuck into producing ethanol, as it is at the moment, into a commercially viable market. Do you agree with that?

Mr Roth—It is quite a different technology base. I think the production facilities for, for instance, wheat-based ethanol currently would not lead to a much faster introduction of sustainable ethanol based on the lignocellulosic process you mentioned. So we believe it is more important now to put the research into development of the second generation technologies and algae-based biodiesel and so forth rather than forcing the fuel retail environment to push ethanol that does not deliver much of a benefit but does increase cost.

Senator JOYCE—President Obama and I think even most of the European leaders, regardless of their political position—I saw Senator McCain and Obama during the presidential debates—all have one thing in common, that is, they believe that they must reduce their reliance on Middle Eastern oil, because that really is one of the triggers for the current global financial crisis, the capacity for an ever-increasing petrol price as a core of every economy to just suck up excess capital and make the place go pop. Don't you see it in our national interest as well to be parallel with theirs, that we must start moving this nation away from reliance on Middle Eastern oil? Especially here in Queensland we have an immense capacity for the production of bio-renewable fuels.

Mr Roth—Biofuels, as currently produced, are by no means renewable. There is significant dispute over the extent of benefit that they do provide, but most acknowledge that it is minimal benefit. Just in current technologies, if we want to replace Middle Eastern supplies of oil, there

are greater opportunities for us to use our gas resources and our stranded coal seams for production of synthetic gas and liquid fuels from our indigenous fuel sources.

Senator JOYCE—Are we able to use that in the current plant that we have got, that is, the internal combustion engine that sits under the bonnet of every car that is floating around the highway today, in the same form as we can use the biofuels such as ethanol?

Mr Roth—We can produce synthetic diesel that is the same as biodiesel. I am not sure of the petrol equivalents, but there are significant issues with ethanol, both for fuel retailers and for a minority of vehicles that are currently still running around on our roads.

Senator JOYCE—With pre '84 vehicles or something like that.

Mr Roth—Many vehicles post that time, too. It is not until 2000 or 2002 that all vehicles are compliant with E10 for long-term use.

Senator JOYCE—You talked about the breakthroughs that are happening in other places. You talked about the Michigan State University position and the development of the enzyme there that brought about the greater capacity for the plant structure to be transferred into ethanol. These are all driven because there is a base demand—a base demand that has been brought about by certain mandates in areas to drive that technology forward. Don't you see that this is just yet another fuel, the fuel of the 21st century, and we in Australia are getting left behind as well because of the ineptitude of people to read where the market is going and get in front of it?

Mr Roth—No. We are talking about using existing vehicles. An ethanol mandate, for instance, is essentially an industry subsidy to support whoever is the lowest cost producer at the time and for them to put investment into whatever process they have. Our research indicates that the existing processes are not particularly efficient and we would be much better off waiting till there were efficient processes.

Senator JOYCE—How many refineries have we got here in Queensland? We have got BP and Caltex and that is it. The rest have buy/sell arrangements at that terminal gate, don't they, such as Shell? Really, for all intents and purposes, it is not a cartel, it is just a straight-out duopoly. They agree their price at the terminal gate. What you do at the retail level is up to you. They have made their margin at the terminal gate once they send it out the door. So how are we ever going to break up that unless we can get a new form of distinct supply onto the market that actually provides new competition?

Mr Roth—We are all in favour of getting new supplies of fuel. It is just that the numbers do not add up for many current biofuel technologies. The energy return on energy invested just is not particularly useful.

Senator JOYCE—The overall capital capacity to get into such things as ethanol really is not that high, but when you talk about gas to liquid, coal to liquid, this requires an immense capital outlay. It plays straight back into the hands of those who have the current cartel/duopoly monopoly position in the market. They are the ones with the capital to do it. Won't we just be playing straight back into the hands of those who already have us over a barrel?

Mr Roth—There are many other people in the energy sector that are not currently involved in liquid fuels who could easily provide the capital to get involved in that.

Senator JOYCE—There was an immense premium in the product before. Why were they not there when we were paying $1.60, $1.70 a litre?

Mr Roth—Because they probably recognised that as soon as the global economy took a turn for the south that the fuel price would drop considerably.

Senator JOYCE—So what do you see as the future of us ever breaking out of this position where the oil companies have us over a barrel? Is it just an acceptable consequence and we live there?

Mr Roth—Diversifying fuel sources is good, and to the extent that new technologies arise that are efficient, we should be investing in those. We should be looking at using our other indigenous energy sources to the extent we can.

Senator JOYCE—But how is this going to happen? This recession that we are in now is going to pass too. Once it passes, we are going to be right back in the position we were where the oil companies basically had the predetermined capacity because of inelasticity of supply, as you have stated in your paper, just to put the price up to where they feel that there is only one competitive mechanism in the market, that is, they get to the price not where you go to an alternative; the only competition you have got is if you get to the point where you cannot afford it. It is a wonderful Keynesian type of model. It is the perfect place to be with the sale of a product but it is not the perfect place for Queenslanders to be in.

Mr Roth—No. As we have also made clear in our submission, fuel efficiency of new vehicles is the major driver of greenhouse gas reductions in the transport sector. The most effective thing the federal government can do to reduce greenhouse emissions is to put in incentives to make sure new vehicle purchases become much more fuel efficient.

Senator JOYCE—But in your own paper you also noted that there is a 90 per cent reduction in greenhouse gases from the use of lignocellulose transfer.

Mr Roth—Yes, and when that technology is commercially viable, we hope that gets introduced as quickly as possible.

Senator JOYCE—It is sort of catching our tail, isn't it? That technology will not be available till there is a commercial market to deliver it to and the capacity of the government to break up the cartel-like arrangement that gives access for the product to the retail site. This product is locked out of retail sites by a fear campaign that has been driven successfully by the oil companies to say since they control all the retail sites they control the product getting out of the market. Of course, they do not let a competing product come into the market. Do you think the government needs any movement back towards such things as the Sites and Franchise Act so that we do have a capacity to make an alternative product available on the market? You yourself talk about the problems with FuelWatch and how in Western Australia you have gone from 200 independent outlets down to 17, I think you quote, and that this is a bad outcome for the motorist because it loses their capacity for a diversified and broad market. One of the other capacities of

that broad market is the ability to get alternate products onto the market. I have a vested interest if I work for BP to make sure we only sell the stuff that supports my sum capital, which are my oil wells and my refining capacity. I also have a vested interest to make sure I get the highest possible price. If there is inelasticity of supply, that is as high as I want to take it till you cannot afford it.

Mr Roth—And yet at the same time we have BP pursuing a policy of removing unleaded petrol from a number of metropolitan sites and only providing E10 so that our members who have cars that are not compatible with E10 do not have the ability to purchase fuel at that site unless they upgrade to a premium product and pay substantially more.

Senator JOYCE—Obviously they are playing the game. They are not being genuine in wanting to get the biofuels out. They are actually making a campaign of deliberate antagonism.

Mr Roth—We believe that is a genuine response to the five per cent mandate that the state government intends imposing, because the market will not bear 50 per cent of unleaded fuel being replaced by E10 without being forced to through not having the choice to purchase unleaded fuel. So because the majors do not control all of their retail sites and they need to get 50 per cent eventually of E10 sales, they are restricting the availability of unleaded. In the future, if the mandate comes in, we also expect they will increase the price of unleaded, so it will be a negative impost on other motorists as well.

Senator JOYCE—They will be able to increase the price because they control the retail outlets. Don't you see there is a hand-in-hand role for the government to break down the control of the retail outlets as we used to have from 1980 with the Sites and Franchise Act brought in by the conservative side of governments?

Mr Roth—Any means the government has to introduce new players into the market and break down some of the extent of control by the four majors is good. In Brisbane we have a terminal that is used by independents to import fuel products, so there is some breakdown of that monopoly, but anything the government can do to improve that would be welcome.

Senator JOYCE—My final question is on FuelWatch. This is something we will agree on. Do you agree that FuelWatch works completely against the interests of independents and actually will drive independents out of the market rather than keeping them in the market?

Mr Roth—We agreed with independents' and small service station operators' concerns that the impact of FuelWatch would be another way for the majors to hurt their industry.

Senator JOYCE—I recognise comments are made about what happened in Western Australia. Thanks.

CHAIR—Senator Bushby, just quickly.

Senator BUSHBY—Thank you for coming along this morning. We had evidence yesterday from the LPG Association that they consider the only way to decrease emissions from Australia's older fleet is to retrofit them with LPG, which can result in about a 10 per cent saving of

emissions. I was interested in hearing about your eco-drive theory. What are your thoughts on government incentives to promote a wider use of LPG in private cars?

Mr Roth—We support the current government subsidy. We feel that is a very generous subsidy for the conversion of cars to LPG. We are aware that the LPG Association claims a 10 per cent greenhouse benefit. We also understand that there is significant debate within the sector of whether that 10 per cent benefit is often realised in the conversion of vehicles. So, although we do support more vehicles with LPG, we do not consider that to be a major way to lead to any large reductions in greenhouse emissions.

Senator BUSHBY—What percentage reductions do you see is available from your eco-driving exercise?

Mr Roth—Our research suggests 10 per cent on average for any participant that goes through a training exercise in learning new driving techniques is readily available, so we believe we can get 10 per cent benefit per driver.

CHAIR—Thank you very much for your contribution to the inquiry—

Senator IAN MACDONALD—Mr Roth, can you just confirm that this crazy scheme about Queensland petrol for Queenslanders only has been put to bed by the state government?

Mr Roth—Our understanding is the state government has put on hold any changes to the existing subsidy arrangements. We are not aware of any more.

Senator IAN MACDONALD—What is the RACQ's official position on that proposal?

Mr Roth—We support the retention of the subsidy as it is at the moment because we have not found—

Senator IAN MACDONALD—The idea of having a barcode on your licence so that those horrible people from south of the border could not get the 8c cheaper fuel I am told by the petrol distributors will put all of the independents out of business.

Mr Roth—Yes. We have not supported the proposed changes from the Queensland government and we are happy that the Queensland government has now backed away from them.

Senator HUTCHINS—Mr Chairman, you have been pretty fierce about making sure that we confine our questions to what we are dealing with now.

CHAIR—ETS. We are dealing with ETS today. Yes.

Senator FARRELL—Just one question, and you can take this on notice, if you like. You referred to a particular type of tree, jatropha, that is being used for biofuels in South Australia. Could you give us some details of that, where it is being processed?

Mr Roth—Sorry, I will have to take that on notice. I am not aware of the details of the jatropha industry.

Senator FARRELL—Yes, okay.

CHAIR—Thank you very much for your contribution to the inquiry.

[9.31 am]

THORPE, Mr Simon Christopher, General Manager, Safety Systems, Virgin Blue Airlines

WHITE, Mr David Saville, Environment Program Adviser, Virgin Blue Airlines

CHAIR—Welcome. I invite you to make a brief opening statement and then the committee will ask you some questions.

Mr Thorpe—Thank you for the opportunity to appear before the committee. Much has changed since our submission, mostly for the worse. The aviation industry has been under sustained pressure for many months. First, it was the escalating fuel price, which reached 40 per cent of our cost base. Previously this was around 15 per cent. Although we have seen some relief in fuel prices, we are adversely impacted by the Australian dollar exchange rate. Now we face the worst economic crisis in almost 80 years. Any benefits received from reduced oil prices have dissipated. By any measure we are an efficient business, but the conjunction of these events is having a major impact on the aviation sector.

We appreciate that cynicism quickly follows special pleading by industry, particularly when an entire economy is in trouble. However, aviation sits at the head of major demand drivers in the economy. It is the lifeblood of Australia's $85 billion tourism industry and it is the key to the viability of many Australian regional economies. No-one should underestimate the challenges aviation is facing and the consequences for the wider economy and dependent industries. Very high fuel prices and a now failing economy sees the aviation sector fundamentally restructuring what has taken years of sustained investment to build.

We are taking all necessary steps to defend our business. Higher airfares and fuel surcharges were imposed as a result of record fuel prices. These charges suppress demand. In the current climate we have had to substantially reduce yields in order to keep our assets active and protect employment. This has resulted in the lowest airfares in 15 years, which are not sustainable. Planned capacity growth has been deferred and we are now considering withdrawing from some underperforming routes. Aircraft have been redeployed to short haul international routes. We have implemented a $50 million cost containment program. Earlier this week we made a decision to remove a further eight per cent of capacity from the Australian domestic flying, which will impact 400 jobs.

Aviation must be given the opportunity to perform efficiently and maximise its contribution to economic growth. Against this background the committee will understand why we remain deeply concerned about the planned timing and introduction of the CPRS as designed for the aviation sector. Even in the most benign circumstances, the CPRS is effectively a tax on investment and growth—a tax on investment by airlines in state-of-the-art aircraft, which already have dramatically reduced the carbon footprint of the industry; a tax on growth as demand for air travel increases.

To impose any form of tax on efficiency and a prime driver of core economic activity defies all logic. It contradicts the intent of the stimulus package designed to drive economic activity.

The impact will be negative and most evident in regional economies where the multiplier effect of increased economic activity is greatest. This is far more complex than simply the aviation sector's ability to pay.

In the present economic circumstances we urge the government to be flexible in the introduction and management of its reform agenda. Rather than tax the industry when the economy can least afford it, significant carbon abatement can be achieved in the short term by improved traffic management procedures, including flexible flight tracks, improved air traffic control sequencing and introducing continuous descent approaches. This should be the immediate priority.

We have never been passive in addressing our environmental obligations. Our response has included massive investment in the most fuel efficient aircraft, investment in technological innovation, winglets, engine modifications and polymer coatings for our aircraft, more efficient flying through advanced meteorological planning, reduced speed descents, efficient route profiles and minimising aircraft weight. The aviation sector globally is very active in this field. Airlines have taken a leading role in promoting and influencing the development of alternative fuels.

The development of low carbon biofuels for aviation is progressing at a faster than expected pace. Our level of optimism that alternative fuels are viable and could be made available in commercial quantities in the medium term has increased significantly in the period since our submission. We believe that biofuels have the potential to not only substantially reduce greenhouse gas emissions but also contribute to diversification of supply and fuel security. This will require significant work to establish a sustainable supply chain. This does, however, represent a significant opportunity for economic development in Australia.

We are concerned that the money the aviation industry directs to purchasing credits will be used to cross-subsidise other sectors. We estimate that this could be as much as $150 million to $200 million per annum. This money needs to be channelled to initiatives within the sector. The white paper provides details of the Climate Change Action Fund, which will provide targeted assistance to businesses and other stakeholders to smooth the transition to a carbon-constrained economy.

This is particularly relevant to airlines as, while they are large emitters, they already use their fuel very efficiently and are faced with major obstacles in implementing initiatives that will produce stepped reductions. Airlines are not considered to be significantly affected and are not deemed eligible for assistance. It is important that revenues raised from permits purchased by the aviation sector be ring-fenced and channelled into initiatives that improve aviation greenhouse efficiency, especially in the area of alternative fuels development.

There is a further risk that the CPRS will be distorted by applying the scheme's obligation to upstream fuel suppliers in the case of large transport companies. This provides no motivation for fuel suppliers to seek the best price for permits, simply passing the cost down the line. We believe we must have the ability to directly manage and reconcile our emissions obligations from start-up.

In summary, I would like to say that our industry is already at crisis point. Although we support the objectives of the CPRS, the mechanisms and timings proposed will not only adversely affect the aviation sector, they will also impact the broader economy. In addition to being penalised for previous efficiency gains, it will constrain our ability to invest in improvements that have the potential to further reduce our greenhouse emissions. Thank you. We would be happy to receive your questions.

CHAIR—Thank you, Mr Thorpe. Firstly, you have read from a prepared statement. Could you perhaps table your statement for the committee?

Mr Thorpe—I can give you a copy of that. Yes, that is fine.

CHAIR—Thank you very much. If I hear what you are saying, essentially you are saying, given the global economic downturn and the sort of economic environment you are operating in, the government should reconsider both the design and the timeframe in which it intends to implement the CPRS. Would that be a fair summary?

Mr Thorpe—That is a fair summary. Also, when you look at some of the arguments in the white paper, I think they are very simplistic with regards to the impact of the aviation sector on the broader economy.

CHAIR—Can you go into a bit more detail on that?

Mr Thorpe—When you look at the impact that aviation has, there has been a lot of work done in Australia to develop a policy framework that supports a very vibrant aviation sector which is very competitive. Virgin Blue fully support that, and it has actually generated some significant broader benefits for the overall economy. When we go to a regional centre, us taking an aircraft there is far more than us providing air travel. The reason that regions like us to go there is because of the ongoing economic impact that we have. You need it to sustain those regional environments.

CHAIR—From the green paper to the white paper, you have talked about the overall economic environment. Are there any improvements or are there any things that became worse, from the aviation industry point of view, between the green paper and the white paper?

Mr White—Basically, they articulated the same position in relation to aviation. They considered aviation not to be significantly affected or trade exposed, so there was really no change. Simon touched on the point of obligation and who has responsibility for acquitting their credits. I do not think that was really covered at all in the first paper. The second paper made it clear that the upstream fuel suppliers would acquit on our behalf. It did not really articulate a timeframe, and that worries us as well, because it is important that we take that responsibility or have the opportunity to. Frankly, it has maintained the status quo through the two, really, and it did not answer any of the concerns in our submission to the first paper.

CHAIR—Have you done any modelling in terms of the impact on Virgin Blue if the CPRS does proceed? In a worst case scenario, what would be the impact on jobs and what would be the impact on your bottom line? Presumably, you would be preparing for the worst case scenario from your point of view.

Mr Thorpe—We are. I suppose for us it is about making sure that we have a viable and sustainable industry going forward. We operate in a very dynamic environment. We are impacted by exchange rates. We are impacted by fuel price. Now it is going to basically be another big variable of risk within our business that we have to manage. We estimate that it will end up being about $40 million worth of additional costs.

Mr White—Minimum.

Mr Thorpe—We can see that, but the impact of that on the overall economy and the overall routes that—

CHAIR—Sorry. $40 billion additional?

Mr White—Forty million dollars.

CHAIR—Forty million additional cost to your business.

Mr Thorpe—That is right.

CHAIR—So what does that mean in terms of jobs?

Senator IAN MACDONALD—What is $40 million as a percentage of turnover? I assume that your turnover is a public figure.

Mr Thorpe—I would probably rather not give you a number and get it grossly wrong.

Senator IAN MACDONALD—But it is a substantial part of your—

Mr Thorpe—If you look at turnover and then you look at our profit, we are a very asset-intensive business.

CHAIR—You might take that on notice. You might take the specifics of that on notice.

Mr Thorpe—Yes.

CHAIR—In terms of jobs, I assume that you have looked at different scenarios in which you have certain responses. You have had some job losses in recent days, have you not?

Mr Thorpe—We have had job losses.

Mr White—And this will put some additional pressure on it.

Mr Thorpe—It will put additional pressure in terms of making our industry viable. There is no doubt that our industry is very cost sensitive. When we go into a new market, by providing reduced fares in that market, we stimulate activity. That activity is not just the airfare; it is the hotels and the taxi fares and all the other things that go with stimulating a local regional economy.

CHAIR—You are trying not to give me a figure, but can you confirm that—

Mr Thorpe—I cannot tell you today or tomorrow what job impact it is going to have. It is going to suppress demand. Essentially, we are basically putting another tax on the activity that we are doing, and that will basically hold us back. You have to realise that you are putting a tax on something that is driving economic activity within the community.

CHAIR—Given the economic conditions and given the fact that you are already seeing job losses at Virgin Blue, if there is an additional cost, would it be fair to say that there will be additional job losses as a result of this introduction of the CPRS as currently proposed?

Mr Thorpe—It will suppress demand. If it suppresses demand, then it will have an impact on activity.

CHAIR—You mentioned the stimulus package before. Do you think it strange that a government would go on a $42 billion spending spree to stimulate the economy and at the same time refuse to reconsider and review the impact on the economy and jobs of a scheme like this?

Mr Thorpe—I feel like I am being used as a bit of a football here. What I am saying is that, in terms of the way it is designed at the moment, it would be contrary to the objectives of the stimulus package. This is basically going to dampen demand for activity in our sector. You have to look at the overall impact of our sector on the economy. It is not simple. In the white paper, there is commentary that equates the impact to be two to four dollars per airfare and that therefore it can be paid. The reality is, our airfares are built up from lots of different things, such as from ground handling charges to security fees and other things. When you look at an overall airfare, it is difficult to see what we are going to be left with to actually make a viable business from. I spent $32 to park in town this morning. I could probably get halfway to Sydney based on that, so there is no doubt that our business is very efficient. What we are doing is potentially suppressing our ability to provide that.

Senator HUTCHINS—Mr Thorpe, the Chair was probably just asking you specifically what an addition of $40 million would do to Virgin Blue, not what it would do the hotels, the taxis and the communities.

Mr Thorpe—Okay. I think what you should probably do is look at the $40 million in terms of its relation to our profit and not in terms of the overall turnover of our business. Our profit is going to be announced on Monday, I think, so you can have a look at that and see what you think the impact of that is going to be on our business.

Senator IAN MACDONALD—Will it be a profit?

Senator HUTCHINS—Let them make the announcement first. In what you have said to us today, you referred specifically to what happens in New Zealand. Could you outline to the committee what is being proposed in New Zealand, which you seem to be more comfortable with, as opposed to what is being proposed here.

Mr White—It relates to one aspect, and that is the point of obligation. As you would be well aware, the emissions trading scheme is under review over there but the framework that is in

place now allows airlines to be the direct point of obligation under the scheme, large fuel users and, I believe, some non-aviation large fuel users as well. Something that can be realised in that scenario—

Senator HUTCHINS—Could you explain what that effectively means, Mr White.

Mr White—Basically it means that we are under obligation to document and benchmark our emissions each year under the National Greenhouse and Energy Regulations. But we will not be able to purchase credits to acquit against that, so we will not have the opportunity to purchase credits at the best price that we feel we can receive. It will be up to a third party to do that on our behalf. We may not be 100 per cent comfortable with that. We believe that the airline should be given the opportunity to take on that function. We may be able to achieve a lower price for those credits and therefore a lower impact on the organisation.

Senator HUTCHINS—That is what will exist in New Zealand, is it?

Mr White—Yes. That is the current framework and that is what is actually in the draft legislation.

Senator HUTCHINS—You have been pretty clear in your submission. I do not have any further questions.

Senator IAN MACDONALD—Just to follow Senator Hutchins, what you are seeking, for example, is the ability to buy a plot of marginal land and plant some trees to offset your carbon. Is that what you are looking at?

Mr White—I suppose it could be stretched to that. I was primarily thinking that we may be able to go out and buy overseas CERs or whatever.

Senator IAN MACDONALD—Okay. Yes.

Mr Thorpe—If we allow it to become upstream activity, there is not necessarily the same incentive to manage it.

Senator IAN MACDONALD—Yes.

Mr Thorpe—I have said that it is effectively a tax. Basically, it becomes even more of a tax.

Senator IAN MACDONALD—Yes.

Mr Thorpe—But it is then a sort of a variable tax and has the potential to further constrain activity.

Senator IAN MACDONALD—Thanks for that. I will digress by congratulating you on flying direct from Townsville to Canberra, which will save me a lot. I hope what you are saying will not impinge upon that. Good on you and lovely to have—

Senator HUTCHINS—That will cut it, I think; that will cut it.

Senator IAN MACDONALD—And Townsville to Gold Coast and Rockhampton and Cairns.

Mr Thorpe—And I congratulate you for choosing to fly Virgin Blue, as well. You can encourage the rest of your colleagues to do so.

Senator IAN MACDONALD—I flew up from Sydney yesterday with you people, as I regularly do. Mind you, I do not see many Queensland ministers flying on those planes, which they promised to do when Virgin came and set up their headquarters in Queensland, but that is a matter between you and the state government, I guess. In relation to the ETS, have you factored into your forward projections the fact that, if the ETS goes ahead, places like Gladstone, where you should be and you are not, along with places like Mackay, Townsville and Cairns, where you are, will have a substantial fall, because the mining sector will contract under the existing arrangements? Have you factored that into your forward projections on loads—

Mr Thorpe—As I said, the environment we operate in is incredibly dynamic. We are always looking at new routes and new opportunities and where we can stimulate the market and where we can best use our assets. It is very difficult to predict where we are going to be almost from one month to the next in the current climate. In terms of marketing, the sale of seats and the management of our inventory, obviously we are always doing a balancing act. We are always trying to maximise profitability for the airline, but that is very challenging to do. There has never been a better time to fly around in Australia, because, in order to keep our assets utilised, we are having to drop yields. That is the reality of the market that we operate in.

Senator IAN MACDONALD—For people flying from Brisbane to Sydney, airlines are important. But if you live up where I do in Townsville and Cairns, airlines become essential.

Mr Thorpe—That is right, yes.

Senator IAN MACDONALD—They are not just a nice thing to have. That is particularly the case for the tourism industry, such as in the Whitsundays and in Cairns. They are very heavily reliant on you guys bringing down your prices and those of your competitors.

Mr Thorpe—And currently we are probably subsidising those flights.

Senator IAN MACDONALD—Yes. Do you have a conclusion on what the ETS might do to the tourism industry outside the capital cities?

Mr Thorpe—If it starts to suppress demand, then obviously we will have to look at our overall business model. Obviously, you cannot operate without making reasonable returns. I know we enjoy it but we do not do it for fun, so it is really about the sustainability of that. At the moment we have announced that we are going to cut five aircraft. We have to then go through our schedule to see how we can actually do that without pulling back out of markets that we have created and that we want to maintain. We know that when you stimulate a market then greater frequency of flights makes it more viable for people and then makes it a better place to do business for people.

Senator IAN MACDONALD—Just finally, the new smaller aircraft that you are using on the Townsville/Canberra, Brisbane/Canberra and other routes are renowned for their fuel efficiency. Is that right?

Mr Thorpe—Yes.

Senator IAN MACDONALD—Was that part of your decision?

Mr Thorpe—That was part of the decision for doing it. It is part of the product because we know that people prefer to fly in those aircraft rather than in a Dash 8. They are a very fuel-efficient aircraft and that was all part of the selection process. When we go off and select aircraft, we look at mission capability and our ability to use it. But we are also looking at the cost of those aircraft over the lifecycle that we use them. That plays a big part in our business. We know that fuel will always play a big part in our business, so we look at that.

That is where, I suppose, some of the issues with the CPRS come in for us. We know that it is put in there to try and manage behaviours and to try and actually make people behave in the most effective way. We are not really sure, in terms of the airline industry, what you are asking us to do over and above what we are doing already. We have all of those pressures in our business and the net result of it for us is that we are going to see $150 million to $200 million taken out of our sector and basically being used to support other sectors which have not put the same efforts in towards efficiency that we have. We talk about that in the submission. There is a lot of activity going on in the biofuels area for aviation. We see real opportunity to actually stimulate the activity there. For us, that is not directly part of our business, but we have to look at it and we have to get actively involved because there is a real reason for us to make that work.

Senator JOYCE—I think you have got to the crux of the issue. Obviously, the airline industry is really in the main frame of being affected by an ETS more than anybody else. I think Senator Macdonald has clearly pointed out there are sections of our state that are going to be the most affected because of the changes to the economy that it will cause. I looked through your short submission. Basically, what stood out is that through your own efficiency in trying to do the right thing you are cross-subsidising others and you will not get any benefit out of this ETS. You are looking for the fuel efficiencies which will bring about the reductions called for in an emissions trading scheme but you are going to be penalised and taxed out of existence because you are trying to do the right thing.

Mr Thorpe—I suppose this really comes back to some of the discussion. You talked about the difference between the green paper and the white paper. The white paper was basically saying, 'You're not strongly affected' based on certain criteria. In a business in which fuel can be up to 40 per cent of your cost base, to say you are not strongly affected based on cost just does not make sense. You have to look at the profitability of the business as opposed to the cost to actually run it.

Senator JOYCE—There was another thing that you said when you were sitting down the back. I notice that you are making sure that you are at the front of the development of alternate fuels and you see that as having the prospect of somehow alleviating the situation that we are in. Are you hoping to get that from an alternate source than the current providers or are you going to rely on BP or Caltex to hold you over a barrel for it?

Mr Thorpe—In terms of the aviation industry, we have to be actively looking ourselves. There are different groups around which are looking at alternative fuels. People look at the Virgin Atlantic trial that was done last year and at the Air New Zealand trial and they have a bit of a snigger and a laugh about what went on there. A huge amount of work went into those trials, and a huge amount has actually come out of those trials in terms of getting a biofuel and producing it to a specification. The specification of that biofuel is actually better for us. It has got lower freeze points. There are some real operational benefits from some of those biofuels. Those trials involved getting a whole batch of fuel and going through the supply chain issues to identify what you have to do for it to be commercially viable. An awful lot of learning has come out of that. There is a lot of work being done to look for the right feedstock. There is no doubt that the technology is there. It is getting the right feedstock that is sustainable and that does not have a negative impact on anything else.

Mr White—In relation to your direct question, aviation is a little different in that we have relatively few bowsers and a heck of a lot of fuel goes through those bowsers. So the infrastructure is, in a way, a lot simpler than millions of service stations.

Senator JOYCE—Yes, right.

Mr White—So the opportunity to be able to set up regional facilities for refining and distribution could be easier in that we can chat with Brisbane airport, Sydney airport, et cetera. We are working very closely with Virgin Atlantic, our sister airline, and Air New Zealand, et cetera. They have not had a lot of luck engaging the fuel companies directly. So there is an opportunity to look regionally at infrastructure.

Senator JOYCE—That sounds very interesting. So you could have the development of a biofuel using sugar or whatever as a feedstock. You could base it in Mackay, and you could use that as a fuelling hub.

Mr White—And then have jatropha over in Western Australia.

Senator JOYCE—Unreal.

Mr White—They are coming up with an international standard for alternative aviation fuel. They have now developed a refining process that can pretty well turn any lipid or vegetable oil into the same standard of fuel, which is superior to fossil fuel jet-A1.

Senator JOYCE—Excellent.

Mr White—So you could use jatropha, algae oil, ligna, cellulosic, sugar or whatever.

Senator JOYCE—That is substantial for a regional town such as Mackay or Townsville, or even the Sunshine Coast. Is there a parcel of funds in the ETS for something which says: 'That sounds like a great advantage to our nation? That sounds like a great advantage for our going ahead. Let's make sure some of the money gets channelled into that.'

Mr Thorpe—I think I was trying to make that point in my opening statement. I suppose what we see occurring with the funds collected through the CPRS is that the credits we would buy

would go into a big pot but they would not necessarily be directed at aviation. There is a chance that they could be; but, if we go down this route and collect those dollars, we should make sure that they are ring-fenced and channelled into aviation initiatives. Stuff can happen right now to reduce emissions through air traffic control procedures and things like that, but they require investment which, again, could generate further emissions.

Senator JOYCE—So where we are at the moment, and this is your frustration—I am just going to restructure your opening statement—is that your tax compromises your capacity to actually find a solution that is a regional based fuel hub of bio-renewable fuels and also that what you are paying for is free permits for the electricity companies to continue creating the problem.

Mr Thorpe—Yes.

Senator BUSHBY—Thank you, gentlemen, for coming along this morning. Your evidence has been very useful. I am interested in exploring a couple of things. The first goes a bit deeper into how the ETS will impact on you and the choices you have. The second thing is how that will flow into the choices you make, particularly about regional routes, which Senator Macdonald was talking about. We heard evidence—and you may have heard some of it while you were in here earlier—that the demand for petrol is fairly inelastic. Basically, the vast majority of people do not have much choice if petrol prices go up. They still have to buy it because they still need to get around. But it is fair to say—and you alluded to it earlier—that airfares are a fairly elastic demand because a lot of the choices of flying are discretionary. Am I correct in concluding from what you are saying that additional costs imposed upon you, whether by the ETS or otherwise, cannot be fully passed on to consumers?

Mr Thorpe—That is right. If we could pass on the price we would, but we would end up flying with half-empty aircraft. So there is a balance that we have to achieve within our business to try and maximize our yield. It is a difficult balancing act in simply trying to do that, but once you have gone down the route and purchased your assets, you have got to use them. You have to try and use them most effectively for your business.

Senator BUSHBY—Without asking you to reveal any commercial-in-confidence, you have purchased most of your planes, or are they leased?

Mr Thorpe—There is a mix.

Senator BUSHBY—Fine.

Mr Thorpe—But a lease tends to be a long-term lease. It is not something that you can just get out of.

Senator BUSHBY—Yes, exactly. So you have still got commitments that arise from the investments that you made. From what I read, you have five planes that have effectively been grounded, and they are assets or capital sitting on the ground, not earning a return. In any business model, that is not a good thing.

Mr Thorpe—It is not a good thing, but also you have to understand the level of investment that we put in to build capability. It is not like we can get somebody off the street and say, 'Drive it.' There is a training program. There is a lot of investment in people. There is a lot of investment to actually set up new routes and new ports so that you have the capability to run them. Again, that is all part of the overall model. And that is a challenge for us right now in terms of how we protect our business so that, if we do ground those aircraft, we will be able to fly them when demand picks up.

Senator BUSHBY—You are already grounding aircraft because of the reduction in demand caused by factors outside your control. We are here talking today about the ETS, which is going to impose additional costs but which is, once again, other than what you are trying to do today, a factor outside your control as well.

Mr Thorpe—Yes.

Senator BUSHBY—What we are hearing is that, if an additional cost is placed upon you as a result of the ETS, you cannot pass that on in full. So what then becomes your option in terms of dealing with that cost?

Mr Thorpe—We have to look at our overall business model because it will basically constrain demand.

Senator BUSHBY—That is right. Without asking you what you will actually do, I am trying to explore your options: you cut routes; you cut staff; you cut frequencies.

Mr Thorpe—Yes.

Senator BUSHBY—I am concerned about this. I am a senator from Tasmania. Senator Macdonald is a senator from Queensland, but he is based in a regional part of that state. Tasmania is obviously highly dependent on air transport. I would be very concerned if any airline were looking at cutting capacity into the state, because I think it provides a lifeline business wise, socially and in all sorts of other things into and out of Tasmania. In the mix, when you are looking at cutting costs and when you are considering the potential to cut capacity, you will be looking at those routes that do not perform the best, obviously.

Mr Thorpe—That is obviously what we have to do. It is very, very hard for us to make a decision to pull out of a market that we have created and stimulated. We find when we open up a new route that over time it definitely stimulates demand. That is a good thing; it is a good thing all round.

Senator BUSHBY—But when other factors then dampen that demand, that creates great difficulties.

Mr Thorpe—That is right. We are a business. We are here to make money. We do not look short term. We look at the long term in what we are trying to create.

Senator BUSHBY—Once again, without giving me specifics—we have had evidence from other airlines and I was wondering whether this is a general thing and so a similar thing with

you—the routes that are more likely to be the poorer performing routes tend to be the more regional ones. Is that a fair general statement?

Mr Thorpe—It is difficult to say. We pride ourselves on having a good network that covers Australia. We know that that is important to us. It is important to travellers that they can actually get on an airline and get to where they want to be. So the value of the network is greater than the sum of the parts. You are looking at all of that. We do not enter a route for fun.

Senator BUSHBY—No, that is right.

Mr Thorpe—We enter a route because we feel that we can stimulate it and we can make it over time.

Senator BUSHBY—We have just established that if external decisions impose cost decisions on you one of the things you might have to look at in order to maintain the viability of your business, is to have a careful examination of the poorer performing capacities that you offer.

Mr Thorpe—It is probably fair to say that we would think long and hard before we stopped flying from Brisbane to Sydney.

Senator BUSHBY—Yes, fair enough. I am pleased to say in terms of your network that you have recently announced you are going to fly direct from Hobart to Canberra.

Mr Thorpe—Yes.

Senator BUSHBY—I would not mind talking to you about the timetabling of that.

Mr Thorpe—We will take comments on that. That is fine. Again, this comes about in terms of aircraft selection. You talked about the Embraers. They are a great aircraft. They can slot into our network and they can do those kind of routes.

Senator BUSHBY—You will have direct costs placed directly on your domestic services and that is what we have been talking about. That will, I guess, have all sorts of impacts. Internationally, you have just launched V Australia. Theoretically the white paper addresses international flights to the extent that your fuel loads do not wear the carbon cost. Is that correct for international flights?

Mr Thorpe—They do not, yes.

Senator BUSHBY—But are there other impacts of an ETS that would affect your competitiveness on your international flights—dealing with your on-the-ground costs of supporting an international airline?

Mr Thorpe—The bulk of our fuel and emissions come from the air travel, so it is really from the aircraft.

Mr White—Many people will be taking a journey via a domestic route to then go to LA. So they will book one flight which comes as a domestic and from my perspective that is where the cost is, in that domestic leg. There is a very minor component of ground fuel usage but—

Senator BUSHBY—It is not going to affect your competitiveness against other international airlines?

Mr White—No. It is like one or two per cent of the total.

Mr Thorpe—Where international starts getting interesting is when you start talking about Europe—when they are putting in trading schemes and things like that. There is a lot of work being done looking at international aviation.

Senator IAN MACDONALD—I just didn't hear you. Training schemes, did you say?

Mr Thorpe—Carbon trading schemes.

Senator BUSHBY—I imagine that with a whole variety of different trading schemes around the world a company that operates planes that go from one to another is going to have a whole minefield in terms of—

Mr Thorpe—Right, and it has potential to create distortions in the market, where you have some areas that do not have—

Senator BUSHBY—That is really what I was getting at. Quite clearly the white paper is designed to remove that to a significant extent for international flights by airlines.

Mr Thorpe—I think the white paper basically leaves it out at the moment.

Senator BUSHBY—Once again, we have actually had evidence from another airline that they do have some concerns about the ground costs associated with international flights because even if it might be small it is an additional cost that some of their competitors might not have that are flying out of other countries that do not have a similar trading scheme. So I was interested in it. But obviously that is not a huge concern for you.

Mr White—To be honest, it is minor in our scenario right now.

Senator BUSHBY—Thank you very much.

CHAIR—Thank you very much for your contribution to the committee.

Proceedings suspended from 10.11 am to 10.28 am

ROCHE, Mr Michael Anthony, Chief Executive, Queensland Resources Council

RYNNE, Mr David, Principal Adviser, Industry Policy, Queensland Resources Council

CHAIR—I welcome Mr Roche and Mr Rynne from the Queensland Resources Council. I invite you to make a brief opening statement and then the committee will ask some questions.

Mr Roche—Thanks, Senators, and for the non-Queenslanders, welcome to humid Brisbane.

Senator IAN MACDONALD—Beautiful. Perfect.

Mr Roche—With reference to the committee's terms of reference, we would like to concentrate on providing some views on how the Carbon Pollution Reduction Scheme may affect the Queensland minerals and energy sector. We have prepared an item of correspondence outlining the main issues we would like to raise today, so I would hope that you accept this letter as our formal submission. The letter has a number of attachments to it.

CHAIR—Yes, we will.

Mr Roche—We are happy for this to be made public. We have also got some further copies here that we can leave with you; it might also be useful for Hansard.

By way of background, the Queensland Resources Council is a not-for-profit peak industry association representing Queensland's minerals and energy sector. We represent interests which include coal and metals mining, mineral processing, oil and gas, electricity generators and explorers, as well as companies providing a whole range of services to the resource sector in Queensland. All up, we have around 160 member companies.

Our aim is to work to secure an environment conducive to the long-term sustainability of the minerals and energy sector in Queensland. Just to paint a picture, the industries we represent accounted for almost 20 per cent of the Queensland economy and about 12 per cent of total full-time equivalent employment. Coal is the most significant export commodity produced in Queensland and accounts for approximately half of the mining sector's economic and employment contribution. As at November 2008, the coal sector had in excess of 22,000 full-time equivalent employees. It goes without saying that mining is critical to the prosperity of regional Queensland.

Attachment 2 of the submission contains a Queensland region-by-region breakdown of the economic and employment contribution of the mining sector. Of note is the substantial contribution of mining in the central and north-west regions. In these areas mining accounts for approximately 90 per cent of those regions' economies.

In relation to the CPRS, the minerals and energy sector's interests are promoted by national bodies—namely, the Minerals Council of Australia, the Australian Coal Association and the Australian Aluminium Council. We note that you have already received submissions and taken evidence from these bodies and we strongly endorse their comments.

The QRC believes an emissions trading scheme is the most appropriate means of establishing a price for carbon and using the discovery powers of markets to identify and implement least-cost opportunities to reduce emissions. Further, we support the Commonwealth's three-pillars approach of focusing on (a) reducing emissions, (b) adapting to change and (c) actively building a global response. This approach reflects a sensible division of effort between prevention, cure and international leadership.

Perhaps something a bit different from the submissions that you have received to date, Senators, is that in October last year we commissioned economic consultants ACIL Tasman to independently assess the economic impact of the government's CPRS green paper. By assessing the likely impact on the future earnings of 10 different Queensland mining and minerals processing operations under a number of different scenarios, we were able to gain an indicative assessment of whether shutdowns might occur and whether further green and brownfield investments might be deterred. We also asked ACIL to look at the pros and cons of the proposed emissions intensive, trade exposed assistance measures—that is, the quantity and means by which the free permits will be granted. The full report is available upon request and a summary of the major findings of this analysis are at attachment 4.

The financial model that was used to conduct this analysis was then rerun by my team, with the slightly revised white paper settings as well as a number of assumptions applied by the Treasury, to provide an updated assessment of the impact of the CPRS on the same 10 operations. Detailed site-by-site findings of this white paper analysis are at attachment 5.

Covering aluminium, alumina, two thermal coal, two coking coal, two non-ferrous ore, a non-ferrous smelting and a non-ferrous refining site and applying conservative assumptions in relation to future revenues, carbon costs, input costs and new plant costs, the analysis concluded that, as a result of the CPRS, four of the 10 sites analysed recorded earnings so low that their short- to medium-term viability may be compromised, with premature shutdowns a risk. At least four out of the 10 sites recorded earnings so low that they would not be able to cover the capital costs of building or replicating a site of similar production, type and location.

Industry's immediate concern is ensuring the ongoing viability of current operations whilst encouraging behavioural changes en route to the new carbon economy. As stated, some operations will experience significant decreases in earnings as a result of the CPRS that will compromise cash flow. In the absence of readily accessible and implemented abatement technologies, short to medium commercial viability will be challenged. Job losses and carbon leakage are therefore demonstrable risks.

The stronger finding of our analysis, and of potentially greater significance in terms of economic consequences, is the impact that the CPRS may have on future brown and greenfield expansions. Again the analysis demonstrates that, whilst earnings may be such that the operation remains viable, earnings will be too low for a number of operations to consider expansions of an operation of comparable size, type and location. Against the background of strong long-term demand for most mineral and energy commodities, competing intracompany interests and growing global resource sector investment options, lost opportunities in Australia in the longer term appear inevitable.

There are some specific concerns that we have with the white paper that we would like to outline. Whilst the proposed unconditional five per cent cut by 2020 appears modest, it will require significant cuts in emissions—some 250 million tonnes of projected business as usual. This will impose significant costs on the Australian economy, in the absence of lower carbon liabilities and/or greater transition assistance to strongly affected industries, until such time as the rest of the world comes on board. Of significance is that the proposed Australian emissions trading scheme is far broader in coverage and more punitive in carbon liabilities than any other actual or proposed scheme in the world.

The CPRS cannot be implemented without consideration of, and in isolation from, the business environment in which affected parties will compete and operate. The proposed scheme cannot be easily calibrated to address critical external factors such as the lack of comparable carbon costs by our competitors, very high input costs and, of course, economic downturn such as that being experienced now. As such, it has the potential to significantly and adversely impact certain industries within Queensland's minerals and energy sectors. The solution is to have a scheme that imposes carbon costs and/or alternatively gives transition assistance commensurate to the cost impacts of these types of risks.

Despite qualifying for the emissions intensive, trade exposed 60 per cent assistance category, coalmining will be unilaterally excluded from receiving such assistance. Such assistance, if it had been available, was conservatively estimated at $2.4 billion over five years. That compares with the $750 million over five years under the two fund arrangements set out for coal in the white paper. These funds are conditional upon abatement activity being undertaken—a unique request compared to the treatment of other sectors—and will provide a much lower effective level of assistance than if 60 per cent free permits were granted. In short, we believe the same rules that apply to the rest of industry should apply to coal.

The CPRS proposes to include methane, the gas generated by the fugitive emissions from coalmining, despite strong reservations from countries within the EU scheme and now New Zealand. Further, methane is extremely difficult to measure, with some companies indicating that current measurement methodologies may overstate emissions by 30 times.

Despite assertions to the contrary, abating greenhouse gases within the sector remains costly and difficult. For example, and specifically in relation to coal, it should be noted that, while some abatement options are available at reasonable cost, for methane-rich coal seam gas emissions from underground mines—typically much more gassy than open-cut mines—around half of the methane emissions are contained in mine ventilation air, for which economic abatement options are currently not available. The research and development costs associated with the technologies to address these emissions are very high, thereby bringing into question the policy merit of significant carbon liabilities, when this signal alone is unlikely to be effective in addressing the market failures and facilitating the R&D spend that is required. It appears to continue the trend in Australian public policy that the minerals sector can be treated differently from other sectors due to its perceived capacity to pay. We have seen over recent years the advent of take-or-pay contracts in hard infrastructure provision, where the mining proponent accepts 100 per cent of risk on infrastructure such as rail and ports. We have seen increases in royalties without industry consultation and without reference to costs and an expectation that the government's responsibilities for the provision of soft infrastructure can be devolved to infrastructure. Put simply, the dramatic decreases in global demand and prices, coupled with

very high costs, means the industry's capacity to absorb significantly greater cost pressures is now greatly diminished.

Despite estimations that the CPRS will impose a $3 billion direct asset loss on Queensland's black coal fired generation fleet over their remaining lives, it is not clear why they will only receive two per cent, or $60 million, of the proposed assistance measures during the first five years of operation of the CPRS under the Electricity Sector Adjustment Scheme. By contrast, and despite having very high emissions intensities, Victorian brown coal fired generation assets are expected to receive $3.4 billion in direct assistance, representing approximately 75 per cent of asset losses associated with the introduction of the CPRS.

In short, we think the CPRS remains somewhat undercooked and we encourage government to tread cautiously and to continue its dialogue with industry. We would, of course, welcome the opportunity to answer the committee's questions. Mr Rynne and I will both answer questions.

CHAIR—Thank you very much, Mr Roche. Firstly, would you be able to table a copy of that statement for the purposes of the committee?

Mr Roche—Sure.

CHAIR—And also could we ask you on notice to provide us with a copy of the full report that you mentioned?

Mr Roche—Absolutely.

CHAIR—Thank you very much. You concluded your opening statement by saying that you call on the government to proceed cautiously. Do you think that the government ought to put the priority on getting the design right rather than pursuing a particular artificial deadline?

Mr Roche—We are not arguing for a delay in the government's target, but I think some who have argued to delay the scheme because of current economic circumstances ignore the fact that—exactly as you have said—the design needs to be right. There has been intensive work with industry throughout 2008. We believe that needs to continue. There are further improvements to design that can be achieved. We hope that would be a cooperative effort. If that can be achieved and the scheme started on time, then so be it. But you are exactly right: we are looking for the design to be improved prior to its commencement.

CHAIR—When you say you are looking for the design to be improved, are you talking about adjustment at the edges or are you talking about some pretty fundamental differences? Some of the consequences you have outlined in your opening statement are pretty drastic if the viability of four out of 10 sites will be compromised, as I understood you to say, as a result directly of the proposed CPRS. You are talking about a huge economic impact here in Queensland.

Mr Roche—You will see from the full report which we will provide to you, and I think some measure of information in the material tabled, that what ACIL Tasman were saying in their report was that a preferred approach to dealing with assistance for emissions intensive, trade exposed industries was to look really at the impact on earnings. I might ask Mr Rynne to outline

that, but I would add that we believe that there are better methods. Whether or not government is prepared to reopen discussion of some of the fundamental design features remains to be seen.

CHAIR—Are you aware, in relation to that, that the Treasurer, who is from Queensland, I believe, a week ago referred the choice of an ETS to a new inquiry of the House of Representative Standing Committee on Economics?

Mr Roche—We have read about that in the media. I have also read that the inquiry may not be proceeding.

CHAIR—That was the latest development yesterday. What were your thoughts when the inquiry was announced a week ago? Did you think that it was a good thing that the government was prepared to have another look at some of the fundamental questions, such as whether an ETS, the way it was proposed, was the best way forward? Was that something that you would have welcomed?

Mr Roche—The minerals and energy sector welcomes all opportunities to engage with the parliament—through committees such as this, and I imagine there will be committees established once the legislation comes into the parliament. The House of Representatives proposed committee process was another one which we would have sought to engage with.

CHAIR—So are you disappointed that the House of Representative inquiry has been canned?

Mr Roche—We will accept what decisions are made by the parliament and engage with those opportunities that are presented to us. It will mean, of course, that we will continue to engage directly with parliamentarians on both sides of politics and with officials and ministers around the concerns that we have outlined.

CHAIR—As you should, but the government has said that they wanted to have the legislation passed by parliament by the end of June. Given the concerns that you have about the flaws in the design, do you think that the adjustments that you are seeking can be achieved within the time that remains?

Mr Roche—You can be sure that the resources sector is seeking to directly engage with officials and ministers and their advisers, as well as taking these opportunities to bring our concerns to the attention of the parliament.

CHAIR—Do you think, given the global economic downturn, that the government should have another look and review the economic impact and the impact on jobs of the proposed CPRS? Is not that a reason to perhaps take a step back?

Mr Roche—As I said in my opening statement and in our submission, we believe the design of an emissions trading scheme needs to be able to deal with the cycles of the economy. We are currently in a very difficult part of that cycle. There will be further such down-cycles in coming years, as it ever has been thus. So we are saying that an emissions trading scheme needs to be able to be calibrated to deal with the ups and downs of the economy rather than saying that there is something special about the current down-cycle such that we have to deal with the design of

the scheme. We believe the design of the scheme needs to be able to cope with the ups and downs of the economy.

CHAIR—Do you think that the current design does that?

Mr Roche—Not to our satisfaction.

CHAIR—A final question on that, because I have to pass on to my colleagues. Are you aware of the hybrid model that is promoted by Professor Warwick McKibbin? What are your thoughts on that?

Mr Rynne—It is a slightly complex model. I have heard Warwick speak to that model a couple of times now and I must admit I have not fully grabbed it. I can see some advantages in it in that it is a very flexible model. I like the addition of like an RBA clearing house—

CHAIR—That is right, yes.

Mr Rynne—that can pump the economy with permits if the prices are getting out of control. I guess this scheme, as proposed by the government, has a safety valve of sorts—$40 that will be ratcheted up, I think five per cent per year over the inception of the scheme. That is still high. That is still a high price cap considering the EU today I think was trading at $A15 today. That is in a very depressed economic climate where industry is selling permits to try and inject some cash flow into the viability of their businesses. I think the short of it is the price can jump around very, very quickly and the EU scheme showed us that there is extreme price volatility if the design is not right. If the design is not right, the price can jump around and it can create some problems.

CHAIR—Professor McKibbin described the European ETS as a failure. Is that your assessment?

Mr Rynne—They are learning. They are about to enter their third phase now. They are still learning. They have not got it all right, and I think they would be the first to say that.

Senator FARRELL—Thank you, gentlemen, for coming along. I just have a query. On page 13 of your discussion paper where you go through the wages in the mining and energy sector, you talk about 140 mineral and energy companies operating in Queensland which generate 31 per cent of the state's wages and salaries. Is that correct? Do you see where I am referring to?

Senator IAN MACDONALD—That is in the original discussion paper, not in the one we got today.

Senator FARRELL—The one you sent off originally.

Senator IAN MACDONALD—Your submission to the green paper.

Mr Rynne—I see. We have had a good look at that. The figure of 140 companies sounds like just coal companies. With the employees we have in mineral and energy in Queensland, I think the ABS says an average wage is about $100,000. Multiply that out. We reckon that is about $16

billion in wages and salaries paid by the energy and mineral sector in Queensland alone, so it is the highest paying sector in the economy.

Senator FARRELL—I am not disputing that for one moment, but that constitutes 31 per cent of all wages and salaries. It does seem like a very high figure. You maintain that figure is correct?

Mr Roche—We will come back to you and just double-check that.

Senator FARRELL—I do not for a moment doubt that it is the highest paying sector of the economy.

Senator IAN MACDONALD—I would not be surprised with that. It is enormous in Queensland.

Senator FARRELL—I am not saying it is wrong. I am just querying it. It does seem likely that the—

Senator HUTCHINS—In your view, does the renewable energy target assist in reducing carbon emissions efficiently?

Mr Roche—The submission that my organisation has made on the target is that it adds to the cost. It is not consistent with a least cost path to emissions reductions. What we support is the price discovery through the cap and trade system. What the renewable target does is overlay a further set of price signals and some quite difficult to achieve outcomes in relation to renewable generation between now and 2020. We accept that it is the government's policy. We have made our views known over time, both when Mr Rudd was the opposition leader and since. I guess we accept that we have lost that debate and have sought to make comments on how to improve the operation of the target. If we were starting again, we would prefer not to have that target on top of the price discovery through a cap and trade system.

Senator IAN MACDONALD—I obviously share your huge concerns, particularly for Central and North Queensland. Again, I think I am referring more to your submission to the green paper, but the biggest impact seems to be in what you classify as Northern Queensland. Would that be because of the minerals processing in Townsville?

Mr Roche—Yes.

Mr Rynne—Obviously, you have the north-west with the base and precious metals. You have coal predominantly in Central Queensland. From the analysis that ACIL Tasman helped us undertake and the limited assistance to be given to the coal industry, I think the analysis would demonstrate that the coal and the central west is much more problematic.

Senator IAN MACDONALD—I appreciate you cannot speak for individual companies, but it has been publicly reported that Sun Metals in Townsville are very seriously looking at simply relocating offshore. Have you seen any figures that would support their contention that it would make them unprofitable to remain in Australia under this scheme and that it is much easier to

emit carbon where they will be looking at going? Have you got anything that can support more than what has so far been media comment, as I understand it?

Mr Roche—We have not specifically looked at that business. We have looked at some refining and smelting businesses and their impacts. You might get some clues and guidance from looking at the detail in the paper we gave you last night as well as the more detailed paper. We cannot specifically comment on Sun Metals, but I guess the key point there is that we believe there has been an underestimation of the impact of the five per cent target. The five per cent target is on an unconditional basis, so a company like Sun Metals will have to operate in a world where they may receive some permits assistance—and I do not know their particular circumstances—but they nevertheless will be incurring a set of costs that are unlikely to be borne by some major competitors in the developing world.

Senator IAN MACDONALD—Does the ACIL report which you are going to make available to us drill down to the scheme's impact on employment, on the assumption that this scheme will be implemented? Mind you, that is a heroic assumption, bearing in mind that, fortunately, we do have a Senate in Australia. On that assumption, has the ACIL report gone into actual job losses in the northern sector, in the Central Queensland area or in the north-west?

Mr Rynne—It did not look at that. It just looked at the 10 specific case studies, as Michael described before—coal companies, aluminium, alumina and the ore and the smelting refinery of the copper. We are in the process and working closely with the Minerals Council. We will attempt to do that analysis over the very short term.

Senator IAN MACDONALD—Can I suggest to you it is hugely important, not only from a political point of view but from your point of view, to try and get the government to understand the impact. I am telling you nothing new, but the job losses in Central Queensland, North Queensland and the north-west will just be horrific if this thing goes ahead. I am quite sure Minister Wong has no appreciation of the impact, so it is very important that you try and drill down to that. I have not had an opportunity to do any more than skim through the paper you have just delivered this morning. Those case studies are actual cases but you are not identifying them as such, although I guess a close look at them would enable them to be identified. But they are actual case studies of individual mines and metals processing areas?

Mr Rynne—That is right.

Mr Roche—That is right.

Mr Rynne—Yes. The companies did put, obviously, their financial data to the economic consultants. A very robust model was set up, very conservative assumptions, and that is the outcome of the analysis site by site.

Senator IAN MACDONALD—I have heard what you have said in your opening statement, but I have not had a look at this. We do not have time for you to take me through it in detail. What does each case study come up with? What is the bottom line of each?

Mr Rynne—The summary of the findings is on page 3 of the letter that we sent to the secretariat last night. That table there is the key findings. Essentially, the model attempted to tell

us, in an indicative sense, (a) is it likely to shut down prematurely before its natural life, and (b) if it had its druthers again, would you build another one of like size, location, type, given the impact on your earnings. So they actually gave us the capital cost of building a like plant, and we put that into the model to say, 'Will your earnings be sufficient over the next 20 years to build another one?'

CHAIR—Can you just tell us where that graph was again?

Mr Rynne—It is a table on page 3 of the letter.

Senator IAN MACDONALD—Down the bottom, entitled *Key Findings, Modelling of the CPRS White Paper*.

Mr Rynne—That is right. So for each operation, each of the 10 case studies, we have got the direct employment. We have got, in that third column there, the short- to medium-term commercial viability, so it is either may be compromised or may not be compromised, and then in that last column there, 'Invest further'—so would they build a like plant. Would they do it all again given the hit on earnings? There are variable results there. Some we think would be compromised because the hit on earnings is such, whereas others we think they just would not do it again. The earnings are too low. You would not cover the cost of your capital.

Senator IAN MACDONALD—The major competitor to Australian coal—and I appreciate there are various different grades and qualities—is, what, Indonesia, China, Russia?

Mr Roche—Indonesia has had significant growth. Australia lost 10 per cent market share in coal between 2002 and 2007. Indonesia was a major beneficiary of that. There are emerging strong competitors, such as Mozambique and Mongolia, for coking coal, Colombia. The US market mainly is a domestic market. China is, by and large at the moment, supplying its domestic market. We do not sell a lot of coal to China directly. Our hope is the Chinese economy does not slow so much that they might actually revert to being an exporter of coal, as they once were.

Senator IAN MACDONALD—Just two quick final questions before the chairman cuts me off. Those first countries you mentioned, are you aware of what ETS scheme they are indulging in, Indonesia, Mozambique, Mongolia?

Mr Roche—We are expecting that they will not be early movers in any global protocol.

Senator IAN MACDONALD—Finally, just to clarify, being a parochial Queenslander here, you are not saying it in so many words and you are being polite and sensitive, but you are really saying the Victorian brown coal industry, where, of course, there are a lot of people, a lot of voters, is getting a far better deal than the Central Queensland black coal industry in the permits and other items. Could I just clarify that that is what you are saying in a polite way?

Mr Roche—Exactly right, and we have written to the government with those concerns. You will not be surprised that they are concerns shared by the Queensland government, given they have $8 billion worth of black coal generation assets.

Senator IAN MACDONALD—Yes, indeed.

Senator JOYCE—I just want to go to some domestic things. In your graph in this schedule that you have dropped off which talks about the Queensland gross state product, can you, just for the purpose of *Hansard*, explain what you mean by 'gross state product'? This is really a vehicle the money is spinning around the state rather than exactly what is the impetus of how money is earned in the state.

Mr Rynne—It is essentially the same as gross domestic product. It is the building block of the economy. It is how you measure the wealth of an economy, essentially. Gross domestic product is the national term. Gross state product is the state-specific term. It is essentially the value-add of an economy. It is the value of everything that is produced less some costs so you do not get double-dipping, and then you add up that chunk of value-add of everything that is produced in the economy through the goods and services markets.

Senator JOYCE—If you think about it, the gross domestic product is the volume of the tank, but it does not necessarily represent what goes in to fill the tank up, in which case your mining sector, with the export of minerals, although perhaps not totally reflected in there in the size, is the crucial factor that brings wealth into the state. Is it 61.7 per cent of the export income for Queensland, isn't it.

Mr Roche—That is right.

Senator JOYCE—So it is a vital component. Also noted in your paper you have got $40 billion worth of new projects or something on the go at the moment in Queensland. I think that was in your first paper. Does the Premier of Queensland understand how close the nexus between the wealth of Queensland and the mining industry actually is and what is going on? Have you had discussions with the Premier's Department about the implications of the current ETS as it is devised?

Mr Roche—We have had good liaison with the Queensland government. I think they are aware of the importance of the mining sector and the broader resources sector to the strength of the economy. They have been very open to talking to us about how we believe the CPRS could be improved. In fact, in a practical sense, we believe that the Queensland government is going to be an important player in shaping the final outcome of the CPRS because of the relationship of a state government with a federal government. Industry associations can go so far, but we believe there is an important role to play by the state governments in advocacy to the federal government in finalising this policy.

Senator JOYCE—Mozambique has become, as far as Africa goes, quite stable compared to its neighbours. With Angola, you can take your chances, but China is the big one. China actually has more coal than Australia, doesn't it?

Mr Roche—China produces about two and a half billion tonnes of coal a year. That is compared to, say, something of the order of 300 million plus in Australia. So the volumes are huge.

Senator JOYCE—How much do they produce a year?

Mr Roche—Two and a half billion tonnes.

Senator JOYCE—Two and half billion compared to our 300 million.

Mr Roche—That means that a slowdown in the Chinese economy does risk some of that coal being tipped into the export market. At the moment, overwhelmingly, Chinese coal is used to service their own domestic needs.

Senator JOYCE—We know what is happening to their own domestic needs in the current financial crisis. But they would have the immense capacity to drop that onto a ship and float it around the world, and with this ETS the way it is, their product will become not a bad deal.

Mr Roche—It was only about four or five years ago that China was a net exporter of coal to the rest of the world. The ability for China to again be a significant player in the export market will depend on their ability to produce sufficient coal to meet their domestic needs and return to being a significant exporter as well. We would hope that their domestic economy would be sufficient to absorb their coal production.

Senator JOYCE—Have they done the modelling of what the effect would be to the Queensland economy with the collapse of the coal industry?

Mr Roche—There are certainly figures available about the multiplier effects from the sector. The broader resources sector in Queensland employs directly about 50,000 people, but with the multiplier effects you are talking about another 216,000 people.

Senator JOYCE—That is a lot of people unemployed: 216,000 is a lot of people if that just happens to Australia, let alone what happens to the state of Queensland, if that was to permeate through.

Senator HUTCHINS—Excuse me. Is that all up 216 or is that 216 plus 50?

Mr Rynne—Fifty thousand direct and 216 when you include the indirect—all the other industries that hang off.

Senator HUTCHINS—So it is 256,000?

Mr Rynne—No. No, 216 with the direct and indirect. That is across the whole energy and mineral sectors in Queensland.

Mr Roche—But of the direct employment, coal is about half.

Senator JOYCE—The current population of Queensland is about 4.3 million. Two hundred and sixteen thousand of them out of work would make Queensland go from the driver of the nation's economy, with Western Australia, to being an absolute basket case. We understand that, and, to be fair, I think most people in this room understand that. Do you think Canberra, Parliament House, properly understands the calamity of those numbers?

Mr Roche—I think that the modelling that is been done by the federal Public Service has probably not benefited from the sort of case study work that we have presented to you this morning. They have relied on models which, at a macro level, have been able to convince them that the overall impacts on the economy are modest. What I guess we have sought to do is to drill down and look at real impacts on actual enterprises and to put another view that there are parts of the economy that are quite vulnerable without some design improvements for the CPRS.

Senator JOYCE—And the extent of the modelling because of that 216,000 people—50,000 direct—and what they have done to the property market. Pulling that plug would completely turn upside down the security valuations of so many of the banks, of where they are and the extent that they have borrowings out on an appreciating capital base in Queensland. If that were to turn upside down because of the extent of and movement of people to Queensland, the extent of housing development, the extent of new development, all done on borrowed money, that would have huge ramifications for our banking sector as well, wouldn't it? There would be immense ramifications to the whole financial structure of Queensland and then, obviously, it would filter down into Australia.

Mr Roche—We are talking about 12 per cent of Queensland employment that is in the resources sector.

Senator JOYCE—Of course, the people involved with the mining sector are the ones most likely in recent years to have bought the new house, developed the new shopping centre. It is premised on that wealth. If it is not premised on that wealth, then it is premised in some instances on tourism, which is completely exposed by the ETS to airline transport and fuel costs. Have you provided an alternative modelling mechanism to Treasury and said: 'Sorry, we have had to go out and do our modelling on this and we want you to really have a look at this with a better relation to the empirical data and how this touches the economy if we go forward in this scheme. It is going to be hard enough as it is with the financial crisis on our hands and trying to deal with that. You can take us to a tipping point and here is our modelling of what happens next.' Have you provided that to Treasury?

Mr Roche—What we provided—and I was wondering if Mr Rynne might outline it—is what ACIL Tasman were recommending as the alternative approach to dealing with emissions-intensive trade-exposed industries. Would that be of value?

Senator JOYCE—Yes, that would. I have a final question before I defer to my colleagues. We have had some very interesting information here today about how the airline industry is quite happy to look at biofuels and to develop a hub project. That is something that actually the mining industry would have an interest in, too, wouldn't it, because I know they look at biodiesel? If there were a development of the capacity of a central point, developing large amounts of a product that is alternative to the current sources, you would have an interest in that?

Mr Roche—Very much so.

Senator JOYCE—Thank you.

CHAIR—Senator Hutchins.

Senator HUTCHINS—Just on the employment aspect and on your paper from ACIL Tasman, you may be aware, if you have been keeping an eye on our inquiry, that we have got experts coming out of our ears giving us advice and models and whatnot. We have had groups such as the Australian Conservation Foundation appear before us. I do not know if you had an opportunity to look at their evidence or their submission?

CHAIR—Very insightful evidence.

Senator HUTCHINS—We have been assured—and maybe that is too strong a word—by groups like the ACF that there will be green jobs created to take up this slack. I wonder if you have a view whether that is optimistic or pie in the sky?

Mr Rynne—I am not aware of the ACF comments, to be honest.

Senator HUTCHINS—It is not just the ACF. There have been a number of bodies that have said that there will be green jobs created as a result of the introduction of the ETS.

Mr Rynne—You would expect with the RET that there would be solar and wind opportunities emerge through the legislated increase in the amount of renewable energy that must enter the system. I could see some opportunities there.

CHAIR—But do you think it will balance the jobs that would be lost? That is really the question.

Mr Rynne—I think probably the modelling that needs to be done—and perhaps we do not have sufficient history yet to do so—is the multiplier effects of those jobs. Do we get the equivalent multiplication of mining from 50,000 to 216,000 jobs as in Queensland? I am not aware of the analysis that might shed light on the multiplied benefits of what you refer to as green jobs. That would be an important piece of analysis to be able to compare like with like.

Senator JOYCE—I think what we are getting to is it is highly unlikely you are going to cover it.

CHAIR—Thank you very much for your contribution to the committee.

Mr Roche—Thank you.

Mr Rynne—Thank you.

[11.15 am]

BEAMES, Mr Ross Morris, Member, Biofuels Association of Australia

HARRISON, Mr Bruce John, Chief Executive Officer, Biofuels Association of Australia

CHAIR—Welcome. Do you have any comments to make on the capacity in which you appear today?

Mr Harrison—The Biofuels Association of Australia is the peak body for the biofuels industry in Australia.

Mr Beames—I am also a director of two companies which are members of the Biofuels Association of Australia.

CHAIR—Thank you. I invite you to make a brief opening statement, then the committee will ask you some questions.

Mr Harrison—Thank you. First of all, I would like to introduce a document to be tabled, which is a summary of the points that I would like to make today. To start off with, I would like to reinforce the point that the Biofuels Association of Australia represents all the ethanol producers in Australia. We cover about 95 per cent of the production of biodiesel in Australia. We represent feedstock suppliers, such as Gardner Smith, and technology providers. We have independent oil companies such as Freedom Fuels, Neuman's and Gull Petroleum. We also have a couple of major oil companies, including BP and Caltex, on board.

The main point I would like to make today is that we have got greenhouse and peak oil issues to deal with. These issues have yet to be fully factored into the market for fuels. It is only when those factors are introduced into the market and affect the pricing of fuels that alternatives will be able to be invested in in the market. Of course, the CPRS, the Carbon Pollution Reduction Scheme, is designed to bring into the market the new pricing for fuels to account for the fact that there are differences between fuels in terms of their carbon levels. There is no mechanism yet for peak oil pricing to be factored into the prices. Without mechanisms introduced by the government, such as this, the pricing signals for peak oil and greenhouse emissions will probably come too late to affect the market in terms of finding alternatives. The pricing will change only at the eleventh hour.

We have been very keen for the CPRS to be introduced so that we can see the pricing mechanism brought into play so that we can get a revaluing of the biofuels and we can get some investment in the industry. However, the interaction of the CPRS with the current policies that are in place we believe will have a negative impact on the biofuels industry over the next few years. I draw your attention to the two charts at the end of the document that has been circulated. To start off with, on the biodiesel margins you will notice that the only positive benefit that we have coming up in the next two to three years in terms of impact on margins from government policy is the CPRS. There is only a positive impact for the mining industry from the word go in 2010. But then, as we have the net taxes put on ethanol and on biodiesel from 1 July 2011, we

start to have overall negative impacts on the margins for biodiesel and, as indicated in the next chart, on ethanol.

That means that a government policy will drive down the margins in the biofuels industry over the next several years. Why would you invest in an industry when those are the signals that are going to come through to the industry? And everybody knows that. Lots of companies ring me and say that they would like to invest in the biofuels industry in Australia and ask what the policy environment is like. When I explain this to them, they do not come back. It even makes it difficult for existing players. I have talked to several biodiesel producers. They have made the comment to me that, once they pay back their capital and these margins are driven down by these policy changes over the next two or three years, they are unlikely to keep producing.

Another change that is going to happen over the next 18 months or so that will impact negatively, particularly on the biodiesel industry, is the fuel tax credit. At the moment, if you meet the diesel standard then biodiesel blends can get a fuel tax credit, which is the old rebate scheme. The environment department is about to move down the path of developing a formal standard for biodiesel blends—probably B6 to B20, six per cent biodiesel to 20 per cent biodiesel. As soon as that formal standard is put in place then the eligibility criteria of meeting the diesel standard means that any biodiesel blend going into the commercial sector, which is the trucking industry and the mines, will lose its advantage—it is 7.6c for a B20 blend, for instance. At the moment, there is just not 7.6c in the margin, so that means that we will lose those markets totally if something different is not done for the policy environment.

That is the main point I want to make. We really do need the CPRS to be in place and allow a revaluing of ethanol and biodiesel fuels, otherwise the effect of the excise changes from 1 July 2011 and the CPRS being delayed for several years will mean that the industry will be devastated over the next few years. When Australia needs some alternative fuels, when we have peak oil and greenhouse issues to deal with a few years down the track, we will not be able to provide those alternative fuels. Thank you.

CHAIR—Thank you very much, Mr Harrison. Can you describe for us how biofuels compare in terms of their emissions or their carbon footprints, for want of a better term, with traditional fuels? Can you describe for us in a few sentences the environmental benefit of biofuels?

Mr Harrison—CSIRO did a study in 2007 which looked at the emissions footprint for biodiesel produced from Australian feedstocks. The vast majority of biodiesel in Australia is produced using tallow. If you have a litre of biodiesel all based on tallow replacing a litre of diesel then you will reduce the greenhouse emissions by 75 per cent. You also get in excess of 50 per cent reduction in particulates, which is one of the major health issues in cities.

For ethanol it depends on the feedstock. If you are using sugarcane on a litre-for-litre basis you will reduce the greenhouse emissions by about 60 per cent. If you are using grain then it is quite a bit lower, perhaps 30 per cent. Of course, if you have an E10 mix then it is 10 per cent of that. I guess that is another reason why we are very keen to move towards an E85 fuel, where instead of having, say, 10 per cent of 60 per cent you would have 85 per cent of 60 per cent, so you have a much bigger impact.

CHAIR—You are describing a range of environmental benefits, but the CPRS, as you said in your opening statement, is actually making it harder. In fact, it could well threaten the viability of the biofuel industry in Australia. That is what you are submitting, isn't it?

Mr Harrison—It is more the implementation of the CPRS that is concerning us.

CHAIR—It is the current design, is it?

Mr Harrison—Yes. The CPRS actually uses the Kyoto rules to zero rate biofuels. That means that, in terms of the CPRS, ethanol and biodiesel are assumed to have no carbon in them. You would multiply the embedded carbon for diesel and petrol, which is 2.6 kilograms of CO2 equivalent and 2.3 kilograms of CO2 equivalent, by the price of the carbon at the time—so if it were $10 a tonne then you would multiply it by that—to get the additional price that would come on to petrol and diesel. That additional margin values the biofuel's greenhouse emissions.

CHAIR—I am trying to get a higher level assessment. I heard you say that, if the CPRS is implemented the way it is currently designed, it would threaten the viability of the biofuels industry in Australia. What sorts of changes do you think are necessary to prevent that from happening?

Mr Harrison—The main issue we have with the CPRS is the government has essentially exempted fuels. They are saying that petrol will not be affected by a CPRS for three years from 2010, even if the CPRS is brought in in 2010. That means there will be no pricing signals for biofuels until at least 2013 on the petrol side. On the diesel side, the farming industry is exempt until at least 2015, so that means that part of the market will be closed to biodiesel blends. The mining industry is in from day one, but the trucking industry has, I think, a one-year holiday and then it is in. It is the delay in bringing in the CPRS effect on fuels that is concerning us because that stops the investment money coming into the industry. They see that the only positive impact has been delayed and yet from 1 July 2011 both ethanol and biodiesel have to start paying tax.

CHAIR—What is the geographic distribution of biofuel production? Can you give us a high-level snapshot?

Mr Harrison—Currently Australia produces about 170 million litres of ethanol. The capacity of the brand-new plant at Dalby in Queensland is 80 million litres. That has just started operating. That is based on sorghum. CSR are currently producing about 38 million litres, but they are expanding that to probably nearly double that to about 70. The Manildra plant is the biggest producer down at Nowra in New South Wales. Their capacity, I understand, is currently around 200 million litres, but they are producing probably about 130 million litres.

CHAIR—So it is all located around Queensland essentially. There is no biofuel production that you are aware of outside of Queensland?

Mr Harrison—That is Queensland and New South Wales for ethanol; that is right. There are four major biodiesel plants: one in Queensland, one in New South Wales and two down in Victoria. They are currently producing about 90 to 100 million litres a year. They are all on the eastern seaboard.

CHAIR—There is often the argument of food versus fuel—you would have heard this before—whether it is appropriate for us to essentially substitute food production for fuel production. Would you care to comment on that?

Mr Harrison—In Australia it is not an issue. CSIRO has come out publicly and said it is not an issue for biofuels production in Australia. On the biodiesel side, we use tallow, which is essentially a product from the beef industry, and used cooking oil, so that is not affecting the food market. On the ethanol side, sorghum is a feed grain, so that does not go directly into human consumption. CSR is using molasses, which is essentially a waste product of the sugar industry. The Manildra plant down in New South Wales uses mainly waste starch. It does put in some wheat as well, but my understanding is that it is the poor quality wheat that it puts in.

I think the other issue is that our industry is so small that these sorts of volumes do not have a huge impact on the grain markets at this stage. I would certainly make the point that, if we want to expand this industry, the biggest volume of feedstocks around is the second generation feedstocks. That is where we need to be. We need to be in that space. That means lignocellulosics—waste out of the timber industry—and waste from the sugar industry on the ethanol side. On the biodiesel side, we need to be getting into something like what they are doing in Queensland, where they are looking at pongamia trees. Down in Victoria they have got a project by the Smorgon family to use algae, and they have actually put a pond next to one of the power stations down in Victoria to take the CO_2 from the power station. Algae probably holds the most promise because of the high yields per hectare. They do not use good quality land. You can use saline water. That is a good place to end up, I think.

Mr Beames—I will add to that. The Dalby project uses 250,000 tonnes of grain a year. It produces 100,000 tonnes of ethanol and 150,000 tonnes of a by-product called 'wet distillers grain' which is used as high quality cattle feed. So there is quite a lot of replacement feed processed just out of the process itself.

CHAIR—Thank you.

Senator HUTCHINS—You can probably assist us if you would not mind, Mr Harrison. We had the LPG people before us yesterday, and they said that using 13 litres of LPG equals 10 litres used in a car at the moment. With the mix of biofuels, does what you can travel when you use one litre of diesel equal one litre of biodiesel? Is it equal?

Mr Harrison—The density of biodiesel is very close to that of diesel, so it is within five per cent of the calorific value of diesel. So it is virtually one to one.

Senator HUTCHINS—If you filled up your truck, you could go the same distance with biodiesel as with diesel, could you?

Senator JOYCE—You can go 95 per cent of the way.

Senator HUTCHINS—I have another quick question. In this document, you refer to a CSIRO report into the future which says that if we do not do something about alternative fuels then we might be facing increased fuel costs—is it $8 a litre?

Mr Harrison—Yes. The CSIRO had a Future Fuels Forum process last year, and the final report of that came out in the middle of last year. It was essentially a modelling exercise. They modelled a whole range of scenarios for Australia. One of their main conclusions was that if Australia did nothing to look for alternatives then the market pricing signals would not happen until demand and supply flipped over. That is when price is the only thing left to divvy up the lower supplies of fossil fuels. So we could end up with petrol at $8 a litre.

Senator HUTCHINS—If we wanted to go and get a copy of the seminar, it is called the CSIRO Future Fuels Forum report—is that it?

Mr Harrison—I could forward you a copy.

Senator HUTCHINS—That would be great—to the secretary. Thank you.

Senator JOYCE—I might just continue on from where Senator Hutchins is. Obviously the market proved decisively that in a period of buoyancy there is an inelasticity of price in fuel. People quickly worked out that you can put up the price of fuel as high as you like and people are still going to keep buying it. That was the scenario before we started heading towards this recession, wasn't it?

Mr Harrison—I guess that was the prevailing view—that generally transport fuels are relatively inelastic over a short period of time.

Senator JOYCE—What is the reason fuel has such power in the marketplace in that period of time? I do not say it was the source, but it was one of the causes of the global financial crisis because it sucked up so much excess capital and really created immense domestic turmoil because of it. Why does hydrocarboniferous—or whatever you care to term it—fuel have so much power? I will help you out. Is there really a viable alternative product to an oil-based fuel in the marketplace with a capacity for general retail on the street at the moment?

Mr Harrison—I think the reason why petrol and diesel have so much power in the marketplace is that they supply the bulk of the market. As soon as you supply the bulk of the market, that means that the price is set off the greatest volume. That means that any fuels with a much lower volume cannot affect the price that much.

Senator JOYCE—The trick is: the more volume out, the more you can affect price—

Mr Harrison—Yes.

Senator JOYCE—because the greater the supply, the more you force down price.

Mr Harrison—Yes.

Senator JOYCE—You mentioned the excise issue, and obviously prior to that we had the sites and franchise acts. How easy is it to get access to retail sites? I do not think we need to go to the argument of whether biofuels are more environmentally friendly, if that is your argument, than oil-based fuels. They obviously are. It is a crazy argument to suggest anything else. How

easy is it for you to get access to retail sites at the moment? Is it basically that you have no problems getting access to retail sites for the sale of biofuels?

Mr Harrison—It is very difficult for a number of reasons. One of the reasons why it has been hard to get biodiesel into the retail market in Victoria, for instance, is that the companies that are already in the market say: 'I need to have a tank to blend the biodiesel and the normal diesel. It's going to cost me a couple of million dollars to go and put one in, along with some associated pipework and that.' An oil major, for instance, might then go to its committee and say, 'I want $2 million to do this,' and the company says: 'You're competing for capital around the world. We have got 40 projects where the internal rate of return is much better than yours, so get stuffed. You're not going to do it.' The Victorian government has come in and said, 'We will give you $2 million to do that,' and that is helping us get into the marketplace. It is those sort of issues. It is infrastructure issues and using assets that you already have in place versus new assets that you have to put in.

Senator JOYCE—Really, the game is to try and get as much biofuels into the market as possible if you are genuine about wanting to reduce the effects of emissions from carbon-based products—the more biofuels the better. With the change to the oil standards, E85 is obviously 85 per cent biofuels and 15 per cent something else, and that gives you the whip hand because it is your product that is the vast majority of the product, as opposed to E10, which of course is 10 per cent your product and 90 per cent the oil major's product, and therefore, the oil majors are back in the main game, controlling the marketplace again. Do you feel that there has been an unnecessary move towards trying to limit your effect and your market power by creating standards that limit the amount of product you are allowed to sell? I am thinking more biodiesel—85 per cent biodiesel—rather than ethanol.

Mr Harrison—Certainly on the biodiesel side we are limited because of the tax arrangements for blends that essentially meet the diesel standard at the moment, which means that we cannot have any more than 20 per cent biodiesel. That means we can never have a B100 competing in the mining industry or in the trucking industry. That is a real problem for us; that is right.

Senator JOYCE—Even in the short term, with the loss of the 7.6 per cent excise break that you get on B20—as you know, I supported that not going through—that is going to have an immense ramification in the short term, too, isn't it?

Mr Harrison—That is right. It would appear that DEWHA, the Department of the Environment, Water, Heritage and the Arts, are going to bring in a formal standard for biodiesel blend some time in the next 18 months. That is when we will hit crunch time, I think, for the biodiesel industry.

Senator JOYCE—It is going to be crunch time for the biodiesel industry. Senator Cormann, you were talking about where there is biodiesel. There was actually quite a bit of biodiesel that was going to be produced in Western Australia until that came through, was there not?

Mr Harrison—Yes, that is right. There are several plants that have closed around Australia. Australian Renewable Fuels are virtually out of the game now. They had two plants, one in Largs Bay in South Australia and one in Picton in WA. They were 45 million litres each, so there is 90 million litres capacity that is out of the game now.

CHAIR—And that is as a result of?

Mr Harrison—Excise and feedstock prices.

Senator IAN MACDONALD—Excise and feedstock prices. Which had the bigger impact?

Mr Harrison—The excise changes in 2006 restricted how much biodiesel you could put into the blend. That meant instead of filling a B100 or something you had to cope with a much lower margin on B20, so that had a significant effect. Then, of course, mainly during 2007, there were high feedstock prices. Just like in the petroleum industry, sometimes you run negative margins. We are a fledgling industry and cannot cope with that whereas bigger companies can.

Senator JOYCE—On a positive, you have heard that we had Virgin Airlines in here today. We have also had the Minerals Council in today. They both said something that is very interesting. Virgin is looking very strongly at the capacity to develop biofuels for aviation, a completely different concept, because they are going to have one hub that actually fuels the planes. If it fuels the planes, that does not mean you can get forced out of the marketplace by the oil majors controlling all the retail sites because you only need to be in one area. The mining industry also said that they are very interested in an association with that, and it can filter out.

Tactically, this looks like a way for biofuels to get into the marketplace in such a way as to break into the airline market. Obviously the airlines would have an interest in hubbing out of a regional area that puts them proximate to where they develop and deliver it. If that is near a mining area, then it is two birds with one stone. Have you had any tactical discussions with these people and linked up and said, 'Let's all get our heads together and work out how we can do this and then go see the government and get the thing in place'?

Mr Harrison—I have not had any talks with Virgin, but I have certainly had talks with Qantas about where their future might lie in terms of fuels. I guess one of the important points for the aviation industry is that they cannot use gas, they cannot use electricity, so they are restricted in the sorts of fuels that they can put in the jets that they have at the moment. Really, you have got to find a middle distillate and that is what biodiesel is. You have just got to find the right feedstock in order to make a biodiesel that can be used in the aviation industry. If they do develop a hub then we would be very supportive of that approach.

Senator JOYCE—With lignocellulose transfer—second-generation biofuels; now we are even looking at third-generation biofuels—because of Australia not being at the front of it, is the world now passing us by in the development of this technology by reason of our own government policy? If it has not passed us by, would Queensland be in the absolute box seat for the development of second-generation biofuels?

Mr Harrison—I certainly think we need to put far more funding into research into second-generation feedstocks because, at the end of the day, you are using the feedstocks that are grown in your country. The lessons from overseas do not come in directly without some changes there, so we do need to put more money in. The current government has put in $15 million, which is nowhere near enough. Queensland would be well placed, because when you are talking about converting biomass, where does the biomass grow the fastest?

Senator JOYCE—Tropical areas.

Mr Harrison—Yes, in the tropical areas.

Senator JOYCE—Thank you.

CHAIR—Senator Macdonald?

Senator IAN MACDONALD—I am interested in the newer biofuels. Are there any that are thought to prosper on marginal land? What are they and what is the extent of their development?

Mr Harrison—On the biodiesel side there is algae. You can put that anywhere you like. You just build a pond and put water in there—and these days you can grow algae from quite saline water. That is what they are doing down in Victoria. The most advanced project in terms of commercialisation would be the one run by the Smorgon family. It is only relatively small at this stage. They have got to go through the process of up-scaling that to commercial size. There is another group, MBD Biodiesel, who are doing some research with James Cook University in Queensland, but that is probably a few years off. Another one that might come in a little bit earlier is from a tree that has been growing in Queensland for 30,000 or 40,000 called *Pongamia pinnata*. It is a legume, which means it fixes nitrogen in the soil. It can cope with quite arid regions. I understand that Origin has started growing these trees using water from dewatering coal seams in western Queensland. They are talking about putting 4,000 hectares under these trees. We can use conventional technology, such as tree shakers that the almond industry uses to shake the nuts out, and it has got quite a good oil. At one of the universities in Queensland, Professor Peter Gresshoff, has been doing some research into this tree and he is quite excited about that. So that is a possibility.

On the ethanol side, Willmott Forests has been looking into the acid hydrolysis approach for breaking now lignocellulosic material from mainly the timber industry. They have got a project underway to look into that. I know that Syngenta has come out to Queensland, and I think, along with the Queensland government and CSR, they are doing some research into embedding enzymes in the sugar cane so they can help break down the sugar cane for lignocellulosic processing. But, again, it is probably still just around the corner.

Senator IAN MACDONALD—What do you know about cassava?

Mr Harrison—Not a lot, other than the fact that I know that it is a high-starch plant that grows in the ground and as soon as you have got high starch levels then you can break that down into ethanol. I do not know what the growing conditions that are needed for cassava and whether they would be appropriate for Australia or not.

Senator IAN MACDONALD—They are talking about doing it in the Burdekin as a trial, so the local rag told me the other day. Just finally—and I know you mentioned this in your paper and other submissions—if you were God, king and country and Prime Minister as well, what would you legislate to give the biofuels industry the kick that you think it needs to get, in Australia's interests, not so much in the investors into biofuels interests? Is there a one-line solution? I think it is a bit more than one line, but try it in two lines.

Mr Harrison—It depends on how far you want to change the legislation. A simple solution would probably be, 'Do not bring in those taxes on ethanol and biodiesel for another five years. We are still a fledgling industry and we need to push that out for at least another five years.'

Senator IAN MACDONALD—But you think it is a time limited concession?

Mr Harrison—Yes.

Senator IAN MACDONALD—The argument is: 'Why do you charge excise on fossil fuels and none on your fuel?'

Mr Harrison—The departments in Canberra have told me that they want to move away from the excise approach of delivering benefits. They want to move to the CPRS, factoring in the greenhouse emission benefits of various fuels, including biofuels. So, I would be tempted to say, 'If you want to make sure that you do not throw the baby out with the bath water, why don't you make sure that you have a certain level of benefits flowing from the CPRS and you do not bring in any taxes until the industry grows to a certain point. Then you can get rid of these and just leave the market based approach of the CPRS to deliver all the benefits,' which we know they will ultimately because the price of carbon will rise in the future. The government is talking about capping it out at $40 a tonne and that limits the benefits, whereas there is no real cap on the excise. They are going to come in at, what, 2½c a litre for ethanol and 3.8c a litre for biodiesel and go up every year by that amount. So we need to find some way of linking the negative impact of the excise and the positive impact of the CPRS so that we do not have one getting ahead of what I assume is the government's policy intention of trying to change the structure of the fuel market so we get lower carbon fuels in place.

Senator IAN MACDONALD—Just finally, you would be aware, even if you have not seen it, of the RACQ's hesitation with ethanol in particular. Where would we find your response to that? Have you got a response published?

Mr Harrison—Yes. Generally they argue about the energy content of the fuel.

Senator IAN MACDONALD—Yes, and older vehicles as well.

Mr Harrison—Yes. There are a couple of comments I would make there. Let me deal with the older vehicles. BP has been changing its petrol stations over to E10 for quite a long time. When they change a service station in Queensland over to E10 they do not actually give you a choice. They get rid of unleaded regular petrol totally and they put E10 there. And they have not had any of the older vehicle owners come back with any issues at all with it.

Senator IAN MACDONALD—RACQ are suggesting the older vehicle owners bypass BP now.

Mr Harrison—It is interesting that Caltex is doing the same thing in New South Wales now. I would bet my bottom dollar that if the oil companies thought there was a risk then they would not be doing that. I also understand that the Orbital review, when it looked at the impact of E10 on older vehicles, did not allow for the fact that in the commercial world the people who blend

E10 put in higher levels of corrosion inhibitors, which was one of the issues they had with the older engines. So they do not actually have anywhere near the issues that people would think.

The other point that the RACQ sometimes bring up is about the energy content. I think they fail to put it into context. They claim that there is a 30 per cent less energy in a litre of ethanol; therefore, if you have 10 per cent in there you go three per cent less distance. It is not widely known, but when the oil companies sell petrol around the place, there is a variation from refinery to refinery to the final product that comes out because of the technology. They have got a difference in each refinery. The crude oil is different. Actually, they can have a variation of anything up to five or six per cent. They say, 'If it is less than six per cent don't worry about it.' So people do not understand that you could be refuelling in another state and go five per cent less distance and not know about it, but it is still petrol.

Senator IAN MACDONALD—That is interesting.

Mr Harrison—I think I am a fairly astute person. I run E10 and sometimes I run ordinary petrol, and I am hard pushed to determine any difference in the distance I go, because one day I might be angry and stick the boot into it or I might do short travelling distances.

Senator IAN MACDONALD—I do the same thing. Just interestingly, BP in my home town sell E10 over the road from Caltex. BP do not pass on the excise saving of ethanol, which Caltex do. That is a matter for someone else, but it is a bit interesting that BP must be making a bigger rake-off because they are not giving any concession for the concession they get on the ethanol component of their blend. It is very interesting.

Mr Harrison—Yes. That is right, it is a different business model. The other point I would make about what RACQ is talking about is that they do a calculation and try to say that if it is 3c less and you are going to go three per cent less distance it should be 4c less so you get a proper value from it. And yet if you buy petrol from service station A and B it can vary by more than that anyway.

CHAIR—Just a quick question. With the right policy setting—so let us assume you get all of the changes that you would want to the CPRS—what would be the opportunity for job creation in the context of green jobs?

Mr Harrison—I am not sure I could put a number on that. Certainly the current industry employs hundreds of people, but I do not have an exact number to hand. If you would like us to we can put together an answer for you on that. Could I take that question on notice?

CHAIR—That would be great, yes. That would be fantastic, thank you.

Mr Beames—Can I say that we own the Dalby ethanol plant and the biodiesel plant in Albury-Wodonga. We employ 20 people at Albury-Wodonga and 50 at the Dalby plant, so every sort of commercially sized plant would have that kind of impact.

CHAIR—And most of your plants would be in regional areas?

Mr Beames—They are, yes, absolutely.

Mr Harrison—Just to add to that, here in Queensland, the Freedom Fuels business model is that they sell themselves as a supplier of green fuels and they only sell E10 and biodiesel in their service stations and they employ something like 500 or 600 people around the country. So there are indirect impacts in other parts of the industry as well as by the producers.

CHAIR—But if you could give that some thought and send some additional information to us, that would be great, if you can. You have got to tell me what the limits are. But we are interested in looking at a regional state-by-state breakdown of impacts and opportunities and we are interested in the impact on regional Australia.

Mr Harrison—Okay.

CHAIR—If there are no further questions, thank you very much for your contribution to the committee and the committee will now adjourn for lunch until we reconvene at 12.45 with Caltex.

Proceedings suspended from 11.53 am to 12.43 pm

[12.43 pm]

TOPHAM, Mr Frank, Manager, Government Affairs and Media, Caltex Australia Ltd

CHAIR—I welcome Mr Topham from Caltex. I invite you to make a brief opening statement and then the committee will ask questions.

Mr Topham—Thanks for that. I have forwarded to the committee a two-page document, which I hope you have received. If possible could that statement be incorporated into the *Hansard*?

CHAIR—We could do that. We have not had a chance to read it yet. Are you planning to read it or do you want to just talk us through the key points?

Mr Topham—I was not planning to read it, but perhaps I could just talk you through the key points.

CHAIR—That would be great.

Mr Topham—Then the document itself can be incorporated for the benefit of people who read the transcript.

CHAIR—Yes. Is it the wish of the committee that the document be incorporated in the transcript of evidence? There being no objection, it is so ordered.

The document read as follows—

The Carbon Pollution Reduction Scheme (CPRS) White Paper was released in December 2008. Because Caltex must purchase permits for its customers' emissions as well as its own emissions, Caltex will be the largest single buyer of carbon permits under the CPRS (about 12% of the permit market excluding freely allocated permits).

The original government proposal in its CPRS green paper was that oil refining should qualify for no free allocation of carbon permits under the CPRS. The latest proposal is an important step in the right direction and we acknowledge the government has been listening to industry concerns.

However, we believe international competitiveness should be maintained, which means a 100 per cent free allocation of permits until overseas refineries such as those in Singapore bear equivalent carbon costs. If international competitors won't face a carbon price, why should we have to? Failure to implement such a policy threatens to destroy Australian investment and jobs without reducing global emissions.

The business environment in which we find ourselves today is adding to our concerns. Australia imports 30 per cent of the petroleum products it needs and this figure will increase over time. Large, low-cost Asian refineries have competitive advantages including being closer to growing markets, which means no new refineries will be built in Australia.

In the near term, lower demand growth in Asia because of the global economic crisis combined with new refining capacity in countries like India will reduce refining profitability. Despite this, Australia refineries can be competitive but not if they

are loaded up with extra costs that tilt the playing field against them. We are not asking for special treatment against imports, just a level playing field. Once competitors have the same carbon costs, we are willing to bear the same costs and emission trading should work as intended to help reduce emissions.

Having to purchase 40 per cent of permits would cost Caltex's two refineries about $25 to $40 million annually at the carbon prices in the white paper (CPRS-5 case and price cap cases). This would seriously reduce the funds needed to keep them running reliably and efficiently. In the bottom half of a business cycle such as the period we're in now, carbon permit costs for refining could consume a significant percentage of our earnings as the costs are not recoverable from customers. Large carbon costs would greatly increase the risk associated with the refining business. Refineries already consume large amounts of energy so focus closely on energy efficiency. As a result, there is not much scope to reduce greenhouse gas emissions through better efficiency. This makes the CPRS just a tax on competitiveness instead of an incentive for emission reduction.

The Australian Institute of Petroleum says the CPRS could indeed place significant pressure on the viability of a number of Australian refineries over the period to 2020, leading to closures. We agree with this assessment. Yet Australian refineries offer the critical supply diversity that underpins security of fuel supply to Australian industry, businesses and consumer. We believe it will be difficult and more costly to maintain our historical high level of fuel supply security if the vast majority of fuel supply is imported. You don't strengthen a supply chain by removing some of the links.

Under the CPRS, motorists will not face carbon costs for at least three years because there will be an offsetting reduction in excise tax.

It doesn't make sense to impose a carbon price on motorists then immediately offset it with an excise reduction. In fact, the way the excise reduction proposal works will actually reduce the price of petrol for several years so emissions from petrol are likely to increase. That's not an environmentally sound policy.

We calculate that by 2017 emissions from petrol will be the same as without the CPRS yet the oil industry will have purchased $8 billion in permits and charged them back to customers. That's financial churn for no purpose. However, it will impose a very significant financial risk on Caltex because of the need to purchase these permits. At the prices in the CPRS, purchasing about 40 million tonnes of customers' permits would cost $0.9 to $1.6 billion dollars annually. In contrast, Caltex's unaudited profit for 2008 was $185 million (audited results to be released 20 February 2009).

Longer term, the CPRS will likely increase petrol and diesel prices in the order of 10 cents per litre or more but this will reduce emissions by only a few per cent. It's not the solution Australia needs to greatly reduce emissions from vehicles and other mobile equipment by 2050. The way the CPRS has been formulated, one has to seriously question why motorists are included.

Another issue is the absence of price transparency. Fuel prices will go up because of today's carbon price but the excise reduction will be based on prices up to a year before. Carbon markets could be very volatile and Caltex does not want to be blamed for any mismatch between carbon prices and the excise reduction.

If the carbon price is greater than the excise reduction, we'll be accused of ripping people off. To avoid this problem, the price of carbon permits for petroleum products should be exactly matched to the excise reduction. This could be achieved by issuing fuel suppliers with permits for customers' emissions at a fixed price equal to the pre-determined excise offset.

The current proposal is badly flawed and needs to be reassessed. Price does little to change motorists' consumption behaviour so the necessary changes will inevitably come from new vehicle technologies, Once new car technology

becomes economical people will switch from fossil fuels to electric vehicles and vehicles using other renewable non-fossil fuels including biofuels.

The government has a significant role in supporting research, development and demonstration and some well targeted incentives for the purchase and use of low carbon vehicles could also help. The focus has to be on reducing emissions from consumption, not production. Australia's greenhouse emissions from the use of liquid fuels were 115 million tonnes in 2006. Refineries emitted six million tonnes.

Regarding the proposed timing of the CPRS, Caltex is not fixed on a particular implementation date. Sufficient time must be taken to ensure the scheme is fully and properly designed and reviewed and it should be implemented fully when economic times return to normal.

This does not mean sitting on our hands but we have time to get it right, which includes ensuring the legislation and regulations are considered by the Parliament as a package. Given that Australia is very likely to meet its Kyoto Protocol target for 2008-2012, it may be desirable to trial the CPRS through 2012 to iron out the problems.

We believe it's likely there will be a global agreement by 2010 on reducing growth in emissions but imperfect and differentiated between countries, particularly in light of global recession. Deep emission cuts or high carbon prices are unlikely initially but the evolving nature of the climate change threat seems likely to drive all governments to more stringent action over the next decade. Under these circumstances it's critical that the international competitiveness of emissions-intensive, trade-exposed industries is maintained until all major emitters are fully engaged.

Mr Topham—Caltex has got a number of points which it wished to make about the CPRS white paper released last year. We have a particular interest in that because we have two refineries, one in Sydney and one in Brisbane, which together amount to Caltex being the largest refiner in Australia. Those refineries are emissions intensive and trade exposed. Our competitors in Singapore will not face any carbon costs, which means that we will not be able to recover the carbon costs that are imposed upon our refineries. At this stage, by our calculations on the white paper, we will be receiving 60 per cent of our emissions as free permits, which will require us to purchase 40 per cent of our emissions. That is in the order of around about one million tonnes of permits a year times whatever the permit price is going to be from the start of the scheme onwards. The indicative price in the white paper for the first year is A$23 per tonne. And the cap, as you would be aware, is $40 a tonne.

That means that the cost of permits to Caltex's refineries would be in the order of 25 to 40 million dollars per annum, which we would not be able to recover from customers because we compete against imports from Singapore and other Asian refineries who will not bear a carbon cost. We believe that international competitiveness should be fully maintained until overseas refineries such as those in Singapore bear equivalent carbon costs as those imposed on Australian refineries. That is the first point.

The second point relates to the upstream point of obligation, which in practice means that Caltex must buy permits for the emissions of all its liquid fuel customers and then cast those costs back to the marketplace. While we believe we will be able to fully pass on those costs it means, though, that with about 40 million tonnes worth of customer emissions and a permit price of $23 to $40, we would have to purchase permits worth roughly one to one and a half billion dollars per annum and then recover the costs from our customers, which you would understand is quite a large financial undertaking.

In terms of the scheme, we question, from an environmental effectiveness point of view, the excise offset which has been provided for motorists and other small users of petrol and diesel. The effect of the scheme is in fact to increase emissions from the use of petrol rather than decrease it, which we find quite strange for a scheme which is intended to reduce greenhouse gas emissions. In fact, it will not be until 2017 that the price of petrol is what it would have been without the CPRS. In the meantime, emissions from petrol will have gone up. In that time Caltex will have bought around about $8 billion worth of permits for no environmental benefit. It strikes us that, from an environmental point of view, the proposal for an excise offset is badly flawed and the scheme needs to be reassessed.

The other issue which concerns us about the requirement to buy permits for customers is the disconnect between the timing of the purchase of permits and the flow-through to customers and the basis on which the excise reduction has been calculated, which may be up to a year before. This may mean that there is a mismatch between the carbon price we pass on to customers and the excise reduction which they have received. For example, if the carbon price rose sharply during the course of the year and yet the excise reduction was based on an earlier period in which carbon prices were lower, motorists would face a potentially significant increase in petrol prices despite their perception that the excise offset was supposed to avoid that. The oil companies like us would get blamed. There is a whole question of price transparency here which gives us some concern.

Then there are matters of the timing of the whole scheme, where current economic conditions give us cause for concern. We do not necessarily advocate that work on the scheme be put off to a future date—in fact, quite the opposite. We think work should continue on designing the scheme but we would question whether now—or should I say 2010-11—is the right time to introduce it in a full-blown version, as opposed to phasing it in in a more gentle way. So they are the major points which we wish to make and which are probably put somewhat more eloquently in our written statement.

CHAIR—You expressed a series of concerns there and some of them are quite fundamental. If there is no change to the CPRS as it is currently proposed, what would that mean for the viability of refining in Australia?

Mr Topham—The position of the Australian Institute of Petroleum, which I have noted in our written statement, is that the CPRS could place significant pressure on the viability of a number of Australian refineries over the next decade leading to some closures, and we agree with that. We are not saying that Caltex refineries would close. That is not our belief. However, the requirement to buy, as I indicated, potentially $25 to $40 million worth of permits annually obviously places great pressure on our operations and reduces our ability to invest. For example, where we might have some profit opportunities—and it is a tough business and we are looking for opportunities to improve profit at the refineries—those profit opportunities might not be able to be undertaken because the funds that you would require for those investments, which might, for example, be in energy efficiency, would in fact be consumed in the carbon costs. The opportunities to undertake energy efficiency or carbon reduction investments in refineries are actually quite limited. So the carbon cost acts more or less as a tax.

CHAIR—How important is it for Australia to maintain a refining industry?

Mr Topham—In the last financial year, Australia imported 30 per cent of its petroleum products, with a somewhat greater percentage of diesel imports and a somewhat lesser percentage of petrol imports, but 30 per cent overall. That explains the very significant reliance on foreign refineries in the supply chain. We would see that if any refineries closed in Australia—and certainly our CEO said in past speeches that one to two refineries could potentially close—you could have imports rising to 50 per cent or more. That, in our view, would be a real problem for Australia's security of supply. We believe that a certain level of imports plus a strong Australian refining industry is essential for security of supply. As we say, you do not strengthen your supply chain by removing links. Diversity of supply, including refining and imports, provides good security of supply of petroleum products for Australia.

CHAIR—My final question concerns the impact of the global financial crisis. Do you think that the current economic conditions would justify the government having another look at the impact on the economy and on jobs of the CPRS as it is currently proposed?

Mr Topham—In our view, if the CPRS were implemented fully as currently proposed, it would, certainly in relation to emissions-intensive trade-exposed industries, have a negative impact on investment and jobs. So now does not seem to be a good time to introduce a fully-fledged scheme.

CHAIR—It would introduce an additional pressure when there is already pressure on investment and jobs is what you are saying?

Mr Topham—That is correct. We would say that, really, we should wait until economic conditions return to normal—however you define normal, and today is not normal—or return to what people would regard as normal, before the fully-fledged scheme is imposed. In the interim, we could take advantage of the time to trial the scheme to iron out administrative problems and, indeed, take a little bit longer to make sure the design is right. It is a scheme of great complexity. I believe that further time to design the legislation and the regulations would be of benefit to everyone.

Senator HUTCHINS—I have only one question. We have heard a lot about alternative sources of fuels. What is Caltex doing, if anything, to encourage and develop alternative fuel sources?

Mr Topham—We are not a multinational company although we have a multinational brand in Caltex. We are an Australian company engaged with production from those two refineries and in marketing. Because of that, our efforts are focused on what can practically be done in Australia. We are the leading supplier of biofuels in terms of the number of sites—both ethanol blends and biodiesel blends. We believe that biofuels have a potentially significant role in providing an alternative to fossil fuels. In the longer term, as expressed by our CEO in some speeches last year, it is clear that transport by 2050 needs to move substantially to electricity of one form or another to enable us to achieve Australia's greenhouse gas targets. For us as a company, biofuels is our emphasis, although we are also major marketers—through a joint venture company, Vitalgas—of LPG Autogas, which also has greenhouse gas emission benefits.

Senator JOYCE—I just want to touch base with one thing you said just then. By 2050, it is obvious that transport will have to be moved predominantly by electricity. If we want to go

down this path, that would suggest that we would be heading to rail and would obviously be having to head to updated rail corridors. Has Caltex applied its mind at all—and I would not be surprised if it had not because it is out of your sphere—to exactly where the new rail corridors are going to go, if they are going to be electrified and new?

Mr Topham—I would have to say that is something we have not applied our mind to. Certainly over the last few years the transport of petroleum product has shifted, like most goods, I think, from rail to road. We would obviously aim to use the most economical transport routes available. If rail became more potentially viable, then it is possible that we can make use of that, but in order for rail to be viable for petroleum products, it would probably have to go to places and smaller centres that are not likely to be viable in the long run. That is a very, very limited answer to your question. But we have not really looked at the whole question of transport design and transport corridors.

Senator JOYCE—They are talking about the reduction of carbon emissions. That means we are talking ultimately about moving away from oil based fuels over the long haul to renewable fuels, which means they are looking at biofuels. Is there anything in the current white paper that that inspires you, by reason of a carrot more than a stick, to get out there and start researching biofuels to a greater extent so that Australia can be at the forefront of second generation biofuels rather than borrowing the technology and paying for it from somebody else?

Mr Topham—That is a very good question which I would not mind commenting on—perhaps in a bit of a longwinded way. The first comment I would make on the CPRS is that increasing the price of fuel has very little impact on demand. If we take a price of $23 per tonne of CO2, which is the starting price, that would increase petrol prices by around about 6c a litre. With a petrol price of $1.20, that is only five per cent If you applied a five per cent price increase long term, it would only reduce emissions from petrol by around about one million tonnes, compared with the 44 million tonnes that are emitted today. Even if you doubled that price increase—in other words, if you went to a carbon price of $40 to $50 a tonne—you will reduce emissions by only two million to 2½ million tonnes. In other words, the CPRS does not realty do anything significant to reduce greenhouse gas emissions from fuel despite the increase in cost to consumers, which could ultimately be 10c a litre or more. The excise offset means that, in the first five or six years, there will be zero reduction in emissions. In fact, it is worse. Emissions actually go up as a result of the CPRS, not down.

CHAIR—It is an interesting irony.

Mr Topham—It is ironic that a scheme that is designed to reduce emissions actually pushes emissions from petrol up.

CHAIR—And it imposes a cost on the economy and on jobs.

Mr Topham—Indeed it does—and it requires us to purchase $8 billion worth of permits in the meantime. To answer the question about biofuels: if the CPRS does not have any real impact on reducing emissions, you need to go to something else. Vehicle technology will probably be the greatest driving force to reduce emissions, but other measures will need to be taken for alternative fuels. The CPRS provides nothing really substantial to assist them. I therefore ask: where is the strategy on biofuels which would provide the necessary incentives to kick that

industry off, particularly second generation biofuels? That is something which I think is not happening at the moment outside of the CPRS. So, in terms of climate change policy, there is a big hole which we as a company think needs to be filled to make sure those alternative fuels, particularly biofuels, can be developed where they are sustainable and economically viable.

Senator JOYCE—Mr Topham, that is an interesting concept and it has been paralleled right through this inquiry from completely different sources. The biofuels industry, the airline industry and the Mining Council have all been saying that, if there was a constructive policy that actually encouraged the development of biofuels, there is immense capacity for Australia to do it. Overlaying that, we are looking at the hub fuelling of aircraft with biofuel from a regional location that would connect a whole heap of dots. Do you discuss with people such as Virgin Blue and the Mining Council how a biofuels policy could be promoted and then, with a joint force, present that to the government and say, 'If this is what you want to achieve, this is a better way of going about it'?

Mr Topham—I have to say that that kind of initiative has not been pursued by us, and maybe that is something which we ought to take up. It is true to say that, in the case of biodiesel, those blends can be immediately substituted for diesel with no problems at all—at least up to five per cent and potentially beyond that. It is more a case of the commerciality of the industry rather than needing to forge alliances, because we have a ready-made fuel there which a lot of people are already using and wanting to use.

The ethanol situation is a little more complex. Nevertheless, the problem seems to be that the economics are not good at the moment. Whilst I would not suggest that these industries need to be economically propped up in the long run, we believe there is a case for some kind of financial support in order to get them going and to support long-term strategic objectives. What precisely that consists of would probably be usefully discussed with other stakeholders and maybe put to government.

Senator JOYCE—I will close on this—and it is very interesting: Virgin Blue made the point that fuel for aircraft can come from one point. You do not have to have a myriad of outlets. You can build an airport in a regional area and use it as a hub to fuel, and you take the stress off your major airports—which then become destinations, not hubs. And you would have proximity to the food stock that actually produces the bio-renewable fuel. This is something that other countries, such as Japan, have already wandered down the path of. We are waiting behind, waiting for everybody else to do the work, and then we will have to buy the technology from them.

Mr Topham—Senator, thank you for the commercial lead! I will let our marketing people know of this opportunity, and I am sure they would be happy to take it up with a potential customer there.

Senator BUSHBY—Mr Topham, how elastic or inelastic is the demand for fuel? I am interested in your view on this, particularly in light of the evidence we have received over the course of this inquiry—and I also note media reports today that Caltex has suffered a 58 per cent fall in annual profit because of a drop-off in demand for fuel. What has caused the drop-off in fuel that has led to the changed circumstances with Caltex? In general, if petrol goes up, what impact does it have on demand?

Mr Topham—Firstly, I will comment very briefly on our results. The major drivers were the less than anticipated refinery reliability last year, which meant that refinery production was less than we would have hoped; and, in terms of our statutory results, the impact of the falling Australian dollar and falling crude oil prices. There are a range of estimates of price elasticity. The recent Treasury paper, I recall, estimated a short-run price elasticity of around 0.15 and a long-run price elasticity of around about 0.4. There are a number of estimates around. The green paper last year by the Bureau of Infrastructure, Transport and Regional Economics, or BITRE, another government body, seemed to indicate that short-run elasticity is around 0.1 to 0.2 and long-run elasticity—perhaps five to 10 years out—is around about 0.4 to 0.5.

The impact of carbon price on demand is very low because of high oil prices and high taxes. For example, if you looked at a $40 a tonne carbon price—and that is the price cap under the CPRS—a $40 a tonne carbon price translates through into 10c a litre. Ten cents a litre on a price of about $1.20 is only about an eight per cent increase in price, which, at an elasticity of 0.1, means that, in the short run, over about a year, the impact on demand is less than one per cent. Even in the long run the impact on demand is only about three per cent. What that says is that the CPRS is largely ineffective in reducing demand, which means that you have to look for other solutions. In our view, the other solutions will primarily be vehicle technology. Governments have a role to play there in trying to assist the development of more fuel efficient vehicles and, we believe, in supporting a supply chain of lower carbon fuels, such as biofuels and biofuel blends, which can fuel those vehicles.

The government, for example, has established its green car fund, but we are not seeing currently any support for refuelling infrastructure. For example, if you run vehicles on ethanol blends, there are no longer any programs for the conversion of terminal service stations to use those blends—at least, at this early stage of market development. So there is a need, I think, for government programs to support the fuel development and refuelling side, and also R&D on the development of fuels which are best used to Australia's agricultural circumstances. I think the research sector is crying out for dollars for assistance in that area.

So price elasticity, as I say, is very low, but even the small effect on emissions is negated by the excise offset which has been provided. That means there will be effectively no increase in price on petrol and diesel for private and commercial users for three years and a diminished increase after that. It is only some very large users who will feel the price impact in the short run, and, as I say, the price elasticity is so low that that will, in effect, be very little.

Senator BUSHBY—You went through a lot of programs that you would like to see government assistance for which would actually assist in developing technology to reduce emissions. On the government including emissions from private motor vehicle use and then offsetting it with an excise reduction: where do you see the government thinks that that will actually assist in reducing emissions?

Mr Topham—That is a bit of a mystery to us. Given that the government has effectively imposed a carbon price and then removed the effect of the carbon price by a reduction in excise, you begin to wonder: why did they simply not put it in the first place? If it takes until 2017 before prices with the CPRS are back to the same as prices without the CPRS—in other words, we have gone through a period of six years to get back to square one—then why on earth are we applying a CPRS to motorists over those first six years?

I am not arguing for transport to be in the CPRS or out of the CRPS. I am merely making an observation that, if the design of the scheme is environmentally ineffective, or, as I say, in the case of petrol, actually increases emissions, then you might want to say—if that is the government's policy intent: that it has no effect for many years—'Just don't include motorists in the first place; only include the large users who are subject to the acquisition of permits in any case.' That is one of the mysteries, I guess, that the committee would be able to probe further on.

Senator BUSHBY—There seem to be a few of them embedded into the CPRS or the white paper as proposed. So, given that you are suggesting that there might be some benefit from government supporting development of the various technologies that you mentioned, would you prefer to see an approach, for example, where, rather than providing a full excise cut, which is obviously going to cost the government considerably, they used some of the money from that to actually assist those who are paying the carbon cost, such as Caltex, to develop the technology that would actually resolve it?

Mr Topham—We probably would not see that the CPRS should, in fact, be used as a kind of carbon levy or funding source. Our view is that the CPRS and emission trading in general is a sound idea because it changes welded prices within the economy, so that goods containing carbon go up in price and people use less, and goods that do not contain much carbon are relatively advantaged.

An ideal design of an emission trading scheme, in our view, would be one where relative prices change but no one is better off or worse off as a result. We would not favour a scheme where money is siphoned off from, for example, a CPRS permit option into R&D. Our view is that R&D has long been something which government has supported out of general revenue and should continue to do so. The government has got a good history of support for R&D, although a little bit on and off over the years. In the case of green vehicles, or green fuels, R&D support should continue, but on budget rather than out of CPRS revenue.

Senator BUSHBY—Okay. Thank you very much.

CHAIR—Thank you very much, Mr Topham, for your contribution to the committee.

Mr Topham—Thank you for the opportunity.

CHAIR—The committee stands adjourned.

Committee adjourned at 1.14 pm