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HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON ENVIRONMENT AND HERITAGE

Reference: Sustainability charter

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HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON ENVIRONMENT AND HERITAGE

Wednesday, 18 April 2007

Members: Dr Washer *(Chair)*, Ms George *(Deputy Chair)*, Mr Broadbent, Mr Entsch, Ms Hoare, Mr Jenkins, Mr Kerr, Mr McArthur, Mr Ticehurst and Mr Wood

Members in attendance: Ms George, Mr Jenkins, Mr Ticehurst and Dr Washer

Terms of reference for the inquiry:

To inquire into and report on:

Key elements of a sustainability charter and identify the most important and achievable targets, particularly in relation to:

1. The built environment;
2. Water;
3. Energy;
4. Transport; and,
5. Ecological footprint.

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KAROL, Dr Elizabeth, (Private capacity)

CHAIR (Dr Washer)—I declare open this public hearing of the House of Representatives Standing Committee on Environment and Heritage inquiry into a sustainability charter. This is the fourth public hearing for this inquiry. It follows the committee's inspections yesterday of some of the sustainability initiatives taken in the Perth region. I would like to place on record the committee's thanks to the representatives from Water Corporation and the City of Joondalup Council who made themselves available to the committee yesterday and who assisted with our tour of their sites. Today the committee will hear from various submitters from the Perth region.

Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament. Consequently, they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as contempt of the parliament. Would you like to make any opening remarks?

Dr Karol—Yes, I would, thank you. The comments that I made to the committee are now nearly a year old. Since that time my thinking has moved on and my approach is becoming more radical, if anything. The reason for that is that, from my research and from looking at the pressures that are on the natural environment and seeing those becoming more apparent, it seems to me that what has been happening in Australia is really tinkering round the edges and we have not made any significant moves to show that there is a will at the highest level to do something that will fundamentally change 'business as usual'. That is really to frame the comments that I make during this next period.

It seems to me that it is critical that any charter capture the idea of sustainable living. There is a big difference between establishing that idea and how we do it. I am not sure whether the charter needs to initially find out all the details of how to do it, if that grand scheme—the Magna Carta of sustainability—is not appropriate. My concern is that the Magna Carta of sustainability be right and make a difference for the future.

I think there are enormous issues to do with curbing consumption, which must be promoted as a lifestyle enhancer as opposed to a penalty. At the moment, many of the issues to do with sustainability are considered as, 'People have to reduce their lifestyle in order to become more sustainable.' That needs to be turned on its head in a charter if it is going to be accepted not so much at a political level but by the will of the people.

There also needs to be major encouragement and support for manufacturing that is sustainable; for example, having interchangeable parts of so many things that we produce, considering the longevity of things that we produce, which goes quite against much of the philosophy of our thinking that we want a manufacturing process that keeps rolling, as opposed to something that has a significant life, because it is framed in terms of job losses. We need to reassess that if in fact we are going to make any headway in this whole issue of sustainability.

It is also critical that there be long-term R&D support so that ideas can move from just the idea and research basis into an international saleable commodity. That is where much of the

strength of Australians is, I think, in developing these new ideas, but they do not seem to then be translated into product or something usable by the international society. That is one of the linchpins of sustainability as well—that we should be exporting the very best ideas to developing countries instead of the leftovers that we no longer want. There is something fundamentally wrong with that sort of approach in a country that has had all the benefits of development.

I believe that, in a sustainability charter, there is also something that will require an understanding of a new social order. This sounds frightening in a political sense. I am not quite sure what it means as a practical thing but, unless it proclaims something about an improved quality of life as a result of sustainability moves, it will become business as usual with a bit of tinkering round the edges. The Australian Wellbeing Index may be a way of addressing some of these issues. There is also a need to have the Treasurer's report that is brought down each year both reflecting the state of the environment and the state of our finances. They are intertwined and should not be considered as quite different elements.

That is just a start. I am not quite sure how you would like to run the session but maybe from my comments I have misled you that I was going to give some pragmatic solutions to something, but over time I have become far more conscious from the research we are doing that we are just pissing in the wind; and I beg your pardon to *Hansard*.

CHAIR—We understand clearly and we heard this in Tasmania. While we talk about sustainability, what hijacked the argument to a large degree is global warming, particularly high levels of CO_2 in the atmosphere. That tends to sometimes make us forget that really it is high levels of consumption that are unsustainable, if we were to extrapolate what Australians do to the rest of the planet which is heading in that direction. I do not really know—the other people on the committee may know—how we address that. Is it by educational processes? You can tax consumption, with GST type taxes, but that has its downsides, too. There is a whole range. If you had any ideas to flesh that out, how you imagine that we should as legislators influence that, I would be grateful.

Dr Karol—It has to do, I believe, with the way role models are portrayed and how they behave. If those who are in a position to create role models—the government is the key body—do not behave in a way that indicates these issues are critical, I do not believe that you can expect the population to change their thinking.

So within your own domain, I think, is really where action has to start and to be demonstrated and publicised: this is what our elected leaders believe is critical and they are prepared to put action into place within a realm that they can control. I do not believe that that is happening and, if anything, the rhetoric that comes from the government keeps stressing, 'Consume, consume, consume because it's good for the economy, because it means work,' et cetera. I do not deny that that is critical but how does one turn that around to say, 'There are other ways of working than producing umpteen things that need to be replaced every two years'? I do not believe that that is a sound policy, although it seems to underline much of our thinking in terms of gross national product and all of the financial issues to do with our nation. My thinking in that way is that if the government cannot do it in their own backyard, then there is a lack of commitment. There is not that absolute will at the highest level to change things.

Ms GEORGE—Picking up on your arguments in relation to the built environment—with your background as an architect, an engineer and a building surveyor—we have seen some pretty poor examples of sustainability, or lack of, in many urban housing developments. Could you outline some of the changes that we ought to be considering. You say here that we should 'reconsider our suburban housing developments as they are generally not located or designed in accordance with sound environmental principles'. Then you say, 'Not politically palatable.' Could you, for the record, amplify some of your views about what might be done to make the built environment and housing developments more sustainable.

Dr Karol—I have been doing some research on developments that have been winning prizes as sustainable subdivisions within the last year. The results I find really disappointing. So far they have been pilot studies, so I must frame it in that context. The biggest problem, I think, is the size of our housing and the actual location of it. If we do not provide facilities for living within a short walking, riding distance, we inevitably continue on our pattern of car use and that means that we build more highways et cetera and people want more and more in order to make their journeys shorter and without congestion. I think that locating developments without public transport is one of the very fundamentals of any sort of sustainability.

I also believe that the way that we are continuing with excessive size in our housing, no matter how we design it, is consuming more resources. My research shows that these so-called sustainable developments are using, in fact, more energy and water than the average in Perth, and on the base of the entire housing stock, most of which is much smaller than what we are building now though not environmentally designed, it is using less in water and energy than new subdivisions. There are two things that I can put it down to: one is the size of the housing and the other is that people's attitudes are, 'I'm now in a sustainable house. I do what I want,' and there is not a responsibility to say, 'Even though I'm living in this house, I must consciously do or not do certain things.'

Ms GEORGE—Who makes the declaration of it being a sustainable development?

Dr Karol—The industry has check lists and they award—

Ms GEORGE—Do you have a BASIX system here? There is a rating system in other states.

Dr Karol—We have the building regulations which control energy type issues in much the same way as BASIX. I do not think that that is the mechanism that will make any significant change.

Ms GEORGE—So what will?

Dr Karol—As I said, I think it is to do with a change of attitude and an understanding that bigger and more is not better. Many of the houses in the pilot study were single people or couples living in houses which were between 250 and 300 square metres. It just does not make sense. The construction industry is being driven, I think, by project builders selling to people the idea that they must have this size of house in order to make it sellable in the future. It has become a vicious circle. We are not legislating in any way to try and break that circle; we are not helping the industry to change those sorts of issues.

I know this sounds like a socialist type move—that you cannot have big houses—but I think we need to be cleverer at how we encourage people to say, 'You can have far better quality with less area and achieve all of your dreams in terms of the living arrangements.' There are some Scandinavian countries that deal with that size issue by saying, 'This is the maximum size of house that you need,' and if you go over that size you get penalised heavily with extra rates and all of the infrastructure costs. Local government is not at all keen to do that, from what I am hearing, so the tool for managing that, and which is palatable, is yet to be developed. But I do not think that tinkering around with BASIX, building regulations et cetera is going to make the difference that we need.

Mr TICEHURST—Following on from the sustainability issue and the sizes of houses, essentially, we are living in a free country where people decide where they want to live and how they want to live. It would be very difficult to have a charter that becomes prescriptive and says, 'You can't have a large house.' But rather than talk about the size of the house, what if we had materials that were better able to reduce energy consumption within a house?

Dr Karol—I personally do not believe that that will make much difference. We now can design things with the materials that we have if the occupants are prepared to engage in the running of the house.

Mr TICEHURST—When you look at new houses now, the construction of typically brick veneer has not changed for probably 50 years. It is still fundamentally the same. There might be a lot more slabs on the ground which certainly have advantages for heating and cooling. There would be quite a lot of double-brick houses, I guess.

Dr Karol—Here that is the typical construction.

Mr TICEHURST—I am from New South Wales, halfway between Sydney and Newcastle. We have a very rapidly growing area and a lot of commuters and people are dependent on cars because infrastructure has not been put in in the first place. We have a situation where people want to live on the coast and the main transport routes are probably 10 kilometres inland, and some large lakes separate the two. But the transport links were not put in initially and there is no way you can put in proper links now without knocking down a whole lot of houses. Would you see any value in having dramatic changes like that so that you can redevelop some existing areas and put in better transport infrastructure? I have certainly seen proposals from UDIA along the lines of redeveloping local areas so that you can achieve this 400 metres walking distance for most of your population, but would it be worthwhile to take a dramatic step like that; put in major infrastructure routes and change the housing along the way?

Dr Karol—It is hard for me to comment on a specific situation, but in principle I think that we must go down the path of public transport. I do not think there is any doubt about it. How you do it, whether as you were describing there is a major arterial public access route and you get feeders coming into that, as opposed to duplicating it—am I right that it is a choice of either duplicating parallel to the existing or getting feeders into the existing?

Mr TICEHURST—Probably having alternate routes, not so much parallel but essentially across existing main routes.

Dr Karol—Yes. I think there are possibilities in doing that.

Mr TICEHURST—Also there is a tendency for governments—state governments and local government—to encourage people to put in, say, 5,000-litre water tanks. Where I live, I am dependent on rainwater only and I store 80,000 litres. To me, you would fill 5,000 litres from about 25 millimetres of rain in an average house, so as a water-saving method it is really expensive and impractical; are better to have the service provided by the state government or the delegated water authority. It is a little bit like the corner store, I suppose. You have piles of little corner stores which have disappeared and now you have supermarkets, but if you look at water in a similar way to what we saw yesterday, with recycling and what can be done with reverse osmosis, when you are doing things on a macro scale like that it is far more economical, far more beneficial. Do you agree with that?

Dr Karol—I think that maybe there is a halfway point. There is probably some benefit in using on-site water for things like toilet flushing where the purity and quality of the water does not perhaps have to go through all of the very stringent processes that we use. Perth has a particular climate problem in that we only get rain usually for maybe six, seven months of the year and the rest of it is dry. I do think that there could be a place for some water storage but I do not think it should be the potable water. That should remain a central source of water because of the quality issues.

Mr TICEHURST—What about the idea of reticulating greywater so you would have two supplies coming into a house? I know particularly Tucson, Arizona in America do this. They actually reticulate greywater and I believe some councils in Sydney do a similar thing so when you have got a development you have got a means of capturing the stormwater from all of the houses and then reticulating that stormwater to use for other than potable.

Dr Karol—You mention two things, greywater and stormwater.

Mr TICEHURST—Yes.

Dr Karol—They are separate because each of them needs to be treated separately. Treating greywater individually is not a good idea. I think that is really going backwards. What I can envisage is community scale greywater systems because they do need regular maintenance. I was the architect for the Subiaco sustainable house. I do not know if you have heard about that one. That was a local government initiative to provide a house that was a demonstration project. That included a greywater system. It was sold last year and I am continuing to monitor it, but I was speaking to the occupants now—there is a greywater system that was put in there for demonstration purposes, really—and they were on the verge of saying, ‘Forget it,’ because one of the elements broke down and they could not get anyone to service it. This is going to be a common story so no matter what sorts of active systems you put in on that micro level, if there is an alternative route that people can take which is far simpler, then inevitably a larger proportion of people will do that.

So in answer to your question, on a communal basis, yes, greywater has a place because of the maintenance issue and, if that can all be recycled into maybe WC flushing, washing machines et cetera, then that is a goer. But the idea of individually asking everyone to look after a greywater

system is not useful. And it may be the same situation for storage of stormwater—that it could well be much more efficient on a municipal basis.

Mr TICEHURST—Certainly, from what we saw yesterday, the reverse osmosis process is quite scalable and if you did it on a development basis or a community basis, as you suggest—the same with collecting stormwater—there has to be a better solution.

Dr Karol—I also think that energy falls into that same basket and that the generation of energy on a communal basis could well be instigated, particularly in larger developments. But there are photovoltaics now which are becoming far more sophisticated and far more economical that are worth putting in, in terms of their cost returns, and developments can become almost zero emission places, depending on obviously what sort of equipment you put in and how little you use space heating and cooling and legislating for solar hot water. In a place like WA that should be mandatory; there should not be a choice of anything but solar hot water. Whether it is boosted with electricity or gas is a far more minor issue than the fact of having solar hot water.

Mr TICEHURST—Yes. Certainly solar hot water is a very good use of renewable energy, absolutely.

Mr JENKINS—I am glad that Dr Karol is not enamoured with the ecological footprint because my small footprints to get here to reduce my ecological footprint have brought me undone at the moment, and I apologise.

CHAIR—So what you are saying is that you walked here and you got lost, Harry?

Mr JENKINS—No, that is only half the reason I am late.

CHAIR—That is a great achievement, I can assure you.

Mr JENKINS—Dr Karol, in the brief time I have been here up the back and listening, when we talk about housing stock one of our real problems is the need for retrofitting. I do not want to go into detail about that, but I am interested that the charter, in the way that we envisage it of being a of aspirations, is a tool for measurement and discussion about policies and things like that. In the context that there is a need for cultural change, how would people go about their business and actually think about matters like housing stock and things like that? How do we make sure that we are getting that message across that leads to people having the change in lifestyle that is required to help the nation achieve a set of targets. How do we go about that? Does the charter have to have elements that lead to cultural change or should that be done by other methods?

Dr Karol—That was really my starting point this morning.

Mr JENKINS—Sorry.

CHAIR—It was a good point. Can you reiterate it for Harry?

Mr JENKINS—Sir, I will read the *Hansard*.

Dr Karol—That would be the quicker way.

Mr JENKINS—I will do that. The final thing is that—and this is by way of comment—one of the great things about coming across to visit this great state in the west is that it makes you realise that we cannot be too prescriptive because there will be regional solutions. I mean, water is an interesting case over here because of the need to protect the aquifers and things like that, whereas in Victoria we might do things in a different way. The committee has to realise that we have to put in place things that do not impinge upon what regional solutions are available. For instance, the thing about the harvesting of water on site versus allowing it to be part of a recharge is the thing that needs to be sheeted home to some of us easterners. I will leave it at that and read the *Hansard*.

Dr Karol—It does give me the opportunity though to reiterate that what I am hearing is that the charter is really this combination of an idea and how to do it. I am not sure that sufficient energy will be put into the grand idea, as opposed to how to do it. I am hearing the 'how to do it' and the nitty-gritty of action but I am not getting a sense of how you are thinking about it. I fear, in terms of someone listening to this, that the big picture—of 'How do you change our way of life?' and whether there is, in fact, some grand Magna Carta idea, which I think is essential—is not there. All this other stuff, as I have said before, is tinkering around the edges and is going to end up, from what my work is showing, with business as usual. We are putting the right rhetoric out there and saying all the right words, but the dramatic change of thinking is perhaps still not being handled. It is incredibly difficult, and I am not suggesting that this is just something you will pull out of the air, but I am not sure that it is being grappled with to the extent it needs to be.

CHAIR—May I respond to that, Elizabeth?

Dr Karol—Yes.

CHAIR—You are right, it is not that simple. Of course the charter itself is just a starting point for a commission and a commissioner—funded federally in cooperation with COAG, of course, and rewarded by a national competition council type reward system—to get some universal thinking about these issues. For example, let us take the undesirability of people building homes that are excessive in size, that they really do not need, and rattle around in with their average of 1.8 children—I do not know how they get the point 8. We need federal, state and local government cooperation in terms of marketing that concept and in some way rewarding or, in some ways, punishing financially those who do not want to play the game.

That would have to be followed up by hands-on liaison in a cooperative manner with a commission and a commissioner. The charter is really being started to be handed over, hopefully, to that type of body, to say, 'Well, here's a start. You just keep value-adding to that and get some policies in place.' We know the concepts of what needs to be done, basically, and that will change a bit as time goes on. Of course, things always change, but to achieve that attitude we are going to need cooperation through all three tiers of government, and this is what we are trying to achieve.

We then need to, in some way, educate the public that it is not good social behaviour and it does not look good to have a mansion that you do not need and that, in fact, it is counterproductive. There are ways of doing that. If you make it socially unacceptable when

someone says, 'Look at all the things I've consumed. Isn't it wonderful?' by saying, 'Well, you know, that's got some planetary effect,' we can change things. But this is the beginning of an attitudinal change, and there is a long way to go. Some of the other members may like to comment. That is just my personal opinion. I think we should ask Jennie and Ken and Harry to see what their opinions are on that.

Mr TICEHURST—I think you talked about this new social order. In some parts of our area, people are looking at building apartment type blocks, which may be two, three or four storeys, in which case you would have more compact housing, particularly as people's needs change. We talk about the empty-nesters and the baby boomers coming on now; they typically might be people who would live in that type of accommodation. But there is so much resistance from the community in general to that. If there is a development application to build a three or four-storey development near, say, a shopping centre area, there are all sorts of problems in getting the community to accept it. You were suggesting a change in social order. Are they the sorts of issues that you think we should be addressing?

Dr Karol—I think that that is far more critical than the small changes that can be made with more efficiency in a house or whatever. In the scheme of things that is not going to achieve what we need to do and that we need to do in a hurry. If we had 100 years to say, 'We'll take these little steps along the way,' fine, but I do not think that we have that sort of time and luxury to play with.

Can I give you an anecdote about approvals? My husband and I have just designed a house for ourselves, making it as sustainable as we can. It is small, it is in an inner Perth area, it complies with basically all of the planning requirements but it does not look like a between-the-wars Federation house. We have had a refusal from the local authority. None of the neighbours objected, but we had a refusal to do that, so we now have to go through an appeal process. We will win the appeal process but it is an enormous amount of work; it is an enormous amount of time, and many people would not bother. They would just say, 'Give them what they want,' and do it. We are in a position where we have got a roof over our heads so we can afford the next six months of argy-bargy and trying to get approval.

On a micro scale that indicates that there is not a will and is not even an understanding that there are better ways of doing things that has to be supported. It is not just in this case; it is in so many areas where you come across legislative processes that have been in place over the past 10, 20, 30 years. To move from that, there is not a strong enough message coming from our leaders to say. 'That it is as important, even more important, than all the other aspects of our decision making.' That does not come across. It does not come across in the budget, it does not come across in any of the grand decisions that our Prime Minister talks about and that our premiers talk about. It is not one of the basics of decision making. That, I think, is the role of the charter. It must be put in there as a fundamental aspect of everything that we do. I know I am preaching, and I am sorry, but this is really, I think, the role of the charter.

Mr JENKINS—Dwelling on some of the 'do-its' is more about inspiration, when you see the variety of things that can be done to achieve an end result. I understand your point about that and, at the end of the day, it has to be about where we are heading. I do not wish to bring a partisan comment into the discussion but we have been of the view that, for instance, climate

change should be a trigger for federal legislation environmentally, and things like that. This is, as Dr Washer described it, part of a journey and we are embarking upon that journey.

Yesterday, at Joondalup, I was very interested to see in place near the town centre an element of design that we are trying to achieve in my local area in the northern outer urban fringe of Melbourne. We are trying to change the shape of communities to make them more sustainable, not only ecologically but in a community sense. In talking with a council officer he described how suburban people had moved into the apartments above the shop but they were still living as people out in the burbs, rather than making the change. He said that, regrettably, this might take generations. I understand your frustration, in that we have to condense that change not by generations but within this generation.

We understand that it is part of our journey to try to put things in place to do that. The inquiry into sustainable cities that preceded this, in a truly non-partisan way, I think, achieved something that we thought was, if not capital ‘L’ leadership, at least small ‘L’ leadership to move the whole discussion forward. We understand the points that you are trying to make and we are trying to come to grips with how to move that. But at the end of the day, as we get constantly reminded, we are political beasts that put up our hands every three years. We are trying to get over that as an impediment—these silly cycles—and you are right, this has to be something that is out into the long term. We are trying to keep our thinking in that fashion.

CHAIR—Thanks, Dr Karol. We have unfortunately run out of time. Thank you for your contribution; it has been fabulous. To sum up, I was contacted two days ago by someone named Jill from the *Age* newspaper. She said to me, ‘What do you want to see in the budget for the environment?’ I said, ‘I’d like them to read the report that we put out in August 2005, accept that and fund it.’ There are 32 recommendations, so if they do that, that is a good start. We are plugging away at this.

Dr Karol—Great! Thank you.

[9.52 am]

ROGERS, Mr Bradley, Manager of Development, Australasia, Global Renewables Ltd

CHAIR—I call the representative from GRD Ltd. Do you have any comments to make on the capacity in which you appear?

Mr Rogers—Global Renewables Ltd is a wholly owned subsidiary of GRD Ltd.

CHAIR—Thank you, Brad. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament. Consequently, they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. Would you like to make some opening remarks.

Mr Rogers—Thank you for the opportunity to speak. Global Renewables is an Australian company which has invented an infrastructure based sustainable alternative to landfilling of municipal solid waste. It does this, as I said, through infrastructure, and I will explain the technology in a moment.

We own a facility in Sydney, which is our first in the world. It receives around 11 per cent of Sydney's municipal solid waste and aims to divert upwards of 70 per cent of that waste away from landfill, diverting those resources that are collected—recyclables—back into the economy and away from landfill, using the putrescible food and garden waste element of the waste stream to produce electricity sufficient to power its own operations and selling the surplus back into the grid. It also has a zero water footprint, so we collect water in certain parts of the process and apply it in other parts of the process. That facility is an $85 million public-private partnership with the New South Wales government through WSN Environmental Solutions, which is a New South Wales state entity.

Our next project will be in Lancashire in the UK. That will be a much larger project, with a capital cost of around $850 million. There, we are building a network of facilities to process all of the waste streams from 1.4 million people, so effectively the equivalent of the whole population of Perth, using the same principle: small footprint, ecological infrastructure installations, 25-year life and aiming to divert as much material away from landfill as possible.

That has benefits for the environment, obviously, through carbon abatement and through avoiding energy and water use that is inherent in landfilling those materials and then having to recreate them from virgin materials. They are also designed to be in urban and suburban environments. They are entirely enclosed and operate under negative aeration, and that has benefits for the environment logistically. As you would be aware, most landfills are on the outskirts of towns, and that involves truck movements.

That is what Global Renewables is about. At the moment most of our opportunity is overseas, in particular in Europe and the United Kingdom where, pursuant to a directive of the European Union, signatories including the UK are phasing out the landfilling of untreated waste. They are

doing that through a number of frameworks. Over time, the objective is to move away from landfilling towards pretreatment of waste.

There will still be some element at the end of that treatment that will require landfilling, but the objective is that you will have extracted all hazardous materials and you will have extracted all useful materials. Over time, through doing that, you create downstream recycling industries so that if you have a technology like ours, which is flexible, the diversion from landfill increases over time and what you end up with in landfill is in any case inert, so it will not leach toxins into the ground water and it will not emit methane into the atmosphere.

We would like to see any charter that is entered into being cognisant of urban waste as an issue. As I said, it cuts across a lot of concerns that are often talked about with urban sustainability: water, energy, carbon abatement, resources sustainability, closing the carbon loops by returning putrescible material to farmers and therefore sequestering that material which would otherwise emit methane into the atmosphere.

In Australia there has not been as much progress as we would like in the development of this sort of infrastructure, essentially because it falls between the levels of government. Local government is traditionally responsible for stewarding these sorts of solutions, but they are not really best placed to be procuring major infrastructure—between $100 million upwards to $1 billion. Those sorts of capabilities generally reside with state governments in Australia, and they are used for procuring bridges, power stations, tunnels and those sorts of things under public-private partnership frameworks.

Ms GEORGE—I read just recently that your company had moved its headquarters offshore. Is that right?

Mr Rogers—No, it is not right.

Ms GEORGE—There was an article in *Fin Review* saying that.

Mr Rogers—There was, and there has been a bit of follow-up media since that article. We have more opportunity in the UK than we do here, for the reasons that I have mentioned. Naturally, we are building up a larger body of resources in the United Kingdom in order to access those opportunities, but we remain an Australian company. I am here responsible for this market and I have people with me, and we are continuing to lobby for the sort of change we need in order to invest in further infrastructure in Australia.

Ms GEORGE—What impact does the failure to increase the MRET have on the technology that you are promoting?

Mr Rogers—That is really peripheral to our business, and that is one of the things that has been reported in connection with us also. We are paid and we develop our facilities off the back of a sort of ecoservice provision, so all of the things that I have mentioned are of interest to our buyers as an alternative to landfilling. Yes, we have a small ecological footprint because we produce our own electricity and sell a small surplus back into the grid and we have a small ecological footprint because of our net zero balance water usage, but renewal energy is a by-product of—

Ms GEORGE—So the production of electricity is kind of a by-product of the—

Mr Rogers—It is. It is really more about carbon abatement and resources sustainability and about taking those streams of valuable materials which end up disparately located in landfills and redirecting them back into the economy.

Ms GEORGE—Yesterday we visited Tamala Park landfill. On the original projections, it was scheduled to close in 2012. They are now saying they are going to extend the life of it and one of the reasons they gave was that there are no alternative viable technologies in existence that can do the same job that they are doing; they are capturing methane, as well, and using the gas to generate power. I am just a bit surprised that the Joondalup council and the other ones that are involved—seven local government authorities here—do not seem to be aware of alternatives.

Mr Rogers—Yes. In the process that was run by the Mindarie Regional Council recently, they went to market looking for an alternative to landfilling, and this is probably a good case study for what I am talking about in terms of frustration and the impediments to developing this sort of industry in Australia. They had 300,000 tonnes per annum of municipal solid waste available to them. You would understand that there would be economies of scale in this sort of thing, since it is large-scale infrastructure. Our minimum scale is about 150,000 tonnes per annum. Our Sydney facility is 175,000 tonnes per annum. The Mindarie Regional Council had available to them more than enough volume in order to underwrite an investment—and it would not have been just us; there is a small handful of other providers and that 150,000 tonnes per annum would be about right for everyone to get the greatest involvement—but they did not want to put all their eggs in one basket, and so they would not undertake to guarantee that amount of their waste stream to the project, and I think all that they could come to was 50,000 tonnes per annum. We could build a facility of 50,000 tonnes per annum, but it would be unnecessarily expensive because it is essentially wasted capacity, and so we pulled out of that process.

I do not know exactly where it is at, but I know that tender process was won by a consortium of Macquarie Bank and a French-Canadian company called Comporec and they will be building an infrastructure facility, and we would be supportive of more of these sorts of things in Australia; there is a lot of work to be done. But we have been through a number of these processes in Australia, in the UK and elsewhere in the world, where there is a market, where these projects are coming to market properly scoped, backed by an appropriate level of government so that we can have confidence that the development spend we are investing in pursuing these projects will be well spent and the project ultimately will not fall over some way through the tender process, and then, when it does come to contract, that there will be the sort of appropriate risk-sharing that you would see in any state government/public/private partnership.

At the moment local government are responsible for bringing this sort of thing to market and you have local governments banding together in order to get that sort of scale, but you have issues with siting, with scale as I said, with capabilities and with capacity. They do not have the sorts of capabilities that reside within state government treasury departments, so it is really a very expensive education process and it is fraught with the danger that you will spend, as we do, $5 million to $10 million bidding one of these things and then it will all get too hard, and that is pure wasted money.

Ms GEORGE—I would have thought that incineration would produce possibly some negative environmental consequences into the air.

Mr Rogers—Yes.

Ms GEORGE—You make it sound as if there is no downside to the process.

Mr Rogers—To what we are doing?

Ms GEORGE—Yes, environmentally.

Mr Rogers—We are a non-thermal treatment process. I might go into that a little bit.

Ms GEORGE—Yes. Thank you.

Mr Rogers—And then I will contrast it with incineration. The process is what is called a mechanical biological treatment solution and we have in our group a minerals process engineering company called GRD Minproc. They essentially developed the UR-3R process using minerals extraction know-how. They just viewed the mixed waste bin as an ore body like any other and asked, 'How might we best apply mechanical and biological processes in order to efficiently get at the value that's within that bin?' When the waste comes to our facility, it first of all goes through a complex mechanical sorting process, whether via magnets, eddy currents which repel aluminium off conveyor belts, very large wind sifters—essentially, vacuum cleaners—trommels, rotating drums, so sorting, and essentially using the physical qualities of any resource that you want in order to extract it from the mixed waste stream.

What you are then left with is a contaminated organic stream because it has been mixed in the bin with everything else, as you can imagine. That goes into a hybrid aerobic/anaerobic digestion process. Very simply, that breaks down the organic cell structure, splits the organics between a liquid stream and a solid stream, extracts impurities like glass and grass fines, sand and that sort of thing and gets them out of the process. The liquid goes into an anaerobic digestion process, and all that is is a biological digestion of the highly organic liquid feed in order to produce methane gas, and that happens in a non-thermal way. Literally, there are bugs living in large storage tanks and they consume the liquid feed and produce methane gas. That is captured, put into generators and that produces electricity. The solid fraction then goes into a large enclosed composting system, which is unmanned. In Sydney the hall is about 350 metres long by about 150 metres wide and there are very large computer-controlled augers which mix the materials through. They spend four weeks inside that building in a controlled environment and then the organic matter comes out, is refined to remove pips and stones and things like that, and it is sold to farmers. It is certified to Australian standard for compost and mulches in New South Wales, and we are selling it into mine remediation markets and things like that as well.

All of that is non-thermal. Incineration is not popular in Australia and we have always sought to avoid that. We founded our process on the concept of highest net resource value. It is about integrating a given waste stream with the markets that are available for it, and the embodied energy in recycling, in most products, is greater than the embodied energy that can be gained by burning it, so we seek to recover and recycle rather than to incinerate. In the UK incineration is more open to council buyers than it is in Australia and some of them are happy to choose

incineration. We focus on buyers who, for whatever reason, want to choose an alternative to both landfill and incineration.

Mr TICEHURST—Is there a minimum population that will generate this 150,000 tonnes?

Mr Rogers—In Australia there are about 690 kilograms per person of municipal solid waste produced, so for our technology at the moment there is a minimum population that we would look for and that is in the order of 4,000 or 5,000 people. In Sydney our facility is located at Eastern Creek and it takes waste through WSN Environmental Solutions, as I said, as our offtake partner, from Blacktown and Fairfield which are two of the larger councils in Sydney, and then from some of the North Shore councils as well. Most of the larger cities in Australia would meet that criterion. If we could see the right sort of leadership in this area, we and other companies like us would then look very hard at developing something smaller for those smaller cities—Hobart and places like that—and regional centres as well. At the moment we are focusing this as a large-impact, major city infrastructure solution.

Mr TICEHURST—What sorts of capital costs are you looking at for that minimum of 150,000 tonnes?

Mr Rogers—Eastern Creek was $85 million. That has been operating since 2004. It would probably be slightly more expensive than that now. We are a company, as I said, owned by GRD Ltd. GRD Ltd is an Australian publicly listed company with a market capitalisation of about $500 million, so each one of these developments is very significant in terms of capital drain for our company. Lancashire, as I said, is $850 million, so that one project is larger than our entire company, and there will be in the order of 12 to 18 more projects like that coming up in the UK alone in the next three to five years. We seek projects that are government-backed by state guarantee here or by PFI credits, federal government support, in the UK so that we can go off to a bank and essentially mortgage that undertaking. That allows us to meter-in our equity on as stingy a basis as possible so that we can get as many of these projects happening in parallel as possible.

Mr TICEHURST—What about other waste products like, say, electronic equipment which is being updated and replaced regularly? Do you also do that type of recycling?

Mr Rogers—We do not at the moment. That area of recycling is fairly well advanced in Europe, as you would be aware. Most of that sort of thing is done by hand. We have not looked at that as we have more than enough opportunities that we look at in our particular little area, but that does end up in our bins.

People put all sorts of things in their wheelie bins, as you can imagine. One of the main nuisances for us is lead acid batteries. We did an extensive what is called waste characterisation study, ferreting through 500 bins essentially, before designing our facility in Sydney, and in those 500 bins there was not a single lead acid car battery. When we built the facility to start receiving waste from 500,000 people, we were getting 15,000 car batteries a year. That is of concern because those materials are obviously ending up in landfills, unless it is going through a pre-treatment process like ours. Over time they will leach into the groundwater. There are all sorts of other things as well: gas canisters, medical waste. We get those things. We have a pre-sort facility where essentially they get extracted out of the process early on, because they can be

damaging either to our employees or to the biological parts of our process. At the moment we focus just on municipal solid waste but there are opportunities that we are broadly supportive of to recycle in all sorts of other areas as well.

Mr TICEHURST—Do you have mixed waste or is there separate green waste from other household waste?

Mr Rogers—The thing that we do, which is different to what was already happening, is that we take the residual waste bin. That has traditionally been viewed as the too-hard basket by most companies and it really is, because of the huge variability that you will get over time in what comprises that waste bin. It is a difficult one to extract value out of. For a number of years there have been facilities which take the sorted recycler bins. They are the ones that you will put your containers in. They go to facilities which essentially, through hand and other mechanical means, separate out the aluminium from the ferrous metal, for example. That is relatively easy to do because they do not have organics commingled with them, so they are relatively clean, safe streams to deal with.

The separate organics bins that you were mentioning that exist in some councils in Australia usually go into what is called an open windrow composting process, so essentially they lay it out in the sun and turn it with front end loaders. Because it is garden waste only, that is a reasonably well understood process. That then goes back into urban amenities markets. We can build those facilities as well and in the UK we are doing that, but the unique thing that we bring to the market is a process which enables value extraction and diversion from landfill from that residual waste bin.

Mr JENKINS—I am interested in the emission reduction units, what the scheme is and how important that is to the whole case.

Mr Rogers—At the moment, as I said, not very. Any of these things which are offtake products of our process—emission reduction units, renewable energy credits or whatever you like to call them, sale of recycled products, sale of organic material—are all part of the broad ecoservice case, but we cannot take a one year offtake contract for carbon credits to the Commonwealth Bank of Australia and say, 'Will you give us 20 years' debt tenure on it?' The contracts that we strike, that we are then able to go off and finance, are guaranteed by a government that is paying us to process the waste. To the extent that those things then become very valuable down the track, we enter into upside sharing arrangements with them, such that if carbon credits go through the roof tomorrow and that does become a large element of our revenue, then we share that benefit back with the customer.

Another area where that is relevant overseas and it is an interesting case point because it is a framework that the UK have used to move away from landfilling in a transitioned away, they have brought in something called the LAT Scheme, which is the Landfill Allowance Trading Scheme. They have said that the way they want to comply with their obligations under the EU directive is that they will say, 'By 2010 and between 2010 and 2020 we will scale down the landfilling of waste by a certain amount.' They have gone to each council on a pro rata basis and said, 'For you, Lancashire City Council, this means that you have this much tonnage to landfill in 2010 and it decreases markedly.' It starts at 66 per cent of their 1995 baseline and by 2020 it is, I think, 20 per cent.

Given that waste generation, as you would be aware, increases quicker than population growth in First World countries, that is a pretty severe reduction. To the extent that they miss that target, that they landfill more than that allowance, they are then penalised 150 pounds per tonne. To the extent that they beat that target by putting in infrastructure like ours, they have a credit that they can trade and logically the value of that credit will go up to 150 pounds per tonne.

In the UK that is another carrot and stick incentive for councils to transition down their landfilling of waste. Incidentally, that is in addition to landfill levies and the cost of landfilling, so while they have not banned landfilling they are making it so exorbitantly to councils to continue landfilling their waste that that effectively achieves that outcome. The councils that use us, particularly in the early years, will have significant LATS credits, so that will be something that we will share in the same manner.

Mr JENKINS—So the LAT Scheme is a closed market just for local government?

Mr Rogers—Correct.

Mr JENKINS—Do you see that as an idea that we might take up in Australia?

Mr Rogers—I would like to see it. I think it is ambitious because there has not been much movement here to date. There are different ways that can achieve the outcome that we are looking for. The two frustrations in Australia are firstly that landfilling is very cheap. We would say that is because the effect of landfilling longer term is not properly valued. That is the sort of reason that the New South Wales government, for example, is stepping in a very high increase in their landfilling levy in order to make landfilling more expensive than sustainable alternatives like us.

If you had the price signal right the other thing then, if you are expecting the private sector to invest in this infrastructure for the public good, is the sort of frustration that I was talking about earlier: appropriate enabling frameworks for public-private partnership based infrastructure. In no other area at the moment, in terms of industry, is the local government out trying to buy $100 million worth of infrastructure and you have a guarantee on the other side of that and a risk-sharing framework which really is subeconomic for the private sector to bid to.

Mr JENKINS—When you say the cost is cheap, I was previously on a municipality that had a heap of quarry holes. The value of the airspace was going up pretty rapidly. Your process compared to traditional fill a hole or the swales, something like that: what is the order of magnitude different?

Mr Rogers—That argument, incidentally, is the one followed by landfillers: that we have lots of land in Australia and that is how we are different to the UK, because we have lots of quarries on the outskirts of cities, so why don't we just keep filling them up? That is not the reason that the UK and the European Union have entered into these things. I know you know that, but I thought it was worth stating it. It is more about resources, sustainability and carbon abatement.

Mr JENKINS—My cover and rider is that we are running out of holes.

Mr Rogers—The order of magnitude: landfilling per tonne differs around Australia. I think in Melbourne it is of the order of $45 to $50 per tonne at the moment. We have incidentally been selected to build a facility in the western suburbs of Melbourne which has been effectively stalled for the last couple of years for the sorts of reasons I have been talking about. Any solution like ours is going to be in the order of $100 plus per tonne. New South Wales, and Canberra is close, at the moment is the only jurisdiction where the pricing is about right because of the landfill levy step-in that they have introduced. In WA at the moment, I think it is $$35 to $40 a tonne.

Often in Australia they do not price in the cost of after care and it can be a substantial period, as you would be aware. They are certainly not pricing in the sorts of thing we would like to see priced in, which are the externalities of landfilling resources and the scarcity of resources and carbon and that sort of thing.

CHAIR—Thanks, Harry. Brad, I have been to Eastern Creek. It is a fabulous site and I hope we can get another invitation as a committee to go back again sometime, because a few people have not been there.

Mr Rogers—Absolutely.

CHAIR—A couple of things I noticed there: one is that they did not have separate bins. In other words, you handle all the rubbish as you would in a mining process. It would just come through. But there was everything from dead kangaroos and you mentioned the batteries, that had to be picked out almost by hand which is a real problem.

Mr Rogers—Yes.

CHAIR—I notice there was some talk about converting plastic bags into diesel, for a kilo to get 0.9-something of a litre of diesel, but I do not know how far you got and I will ask you in a second.

Mr Rogers—Sure.

CHAIR—The other thing I also noted there is that they said that they did have some problems, as you did mention, of getting the organic materials out onto the fields and people to utilise that and get rid of it, basically. It was good mulch, I would have thought, but there were some problems there. Also, on top of that, the question is: why only 11 per cent? Why such a small per cent and why also, in the same analogy, would Mindarie-Tamala Park only want to offer you 50,000 tonnes when they are handling 300,000 tonnes? What are they doing with the other 250,000 tonnes, so to speak? Could I let you sort of mull over that?

Mr Rogers—Yes, and I might forget the order that you asked those questions, so remind me if I do. Mindarie: that is exactly my point and that is a misunderstanding of how infrastructure investments work. If you are going to do it, you do it properly. You need to do a market scan and work out, ‘How do I get the largest number of companies to tender for this thing? What is the economic scale and if we are going to Global Renewables and expecting them to bid, knowing that their economic scale is 150,000 tonnes per annum plus, if we go out for a 50,000 ton per annum bid, either they are not going to bid or it is going to be much more expensive than it

should otherwise be.' They need to do more pre-work and work out whether they actually want to do this sort of thing or not and, if they are going to do it properly, realise that the way to afford the best processing fee for their end customers is to approach it in the way that a state government would for a public-private partnership investment.

They are all well intentioned and they would welcome assistance from state governments. Up until now, state government's role in this has been setting policy and regulating, as an EPA would, against the outcomes but not getting practically involved in the infrastructure development phase, and that is a big part of the frustration at the moment. Eastern Creek has two bins in that area; it does not have three bins. It does collect recyclables separately. We get the other bin—as I said, we can design for whatever system happens to be in place at that time—but one of the risk-sharing things I was talking about earlier is that we require some certainty that that is not going to change over the 25 years of our operation, because obviously that can seriously undermine our investment if, all of a sudden, the waste stream coming to us changes overnight.

Yes, we do get all sorts of weird and wonderful things in the front door at Eastern Creek, including animals dead and alive and, as I said, medical and dangerous things. We got a bag of cash once, which was nice. On a serious note, that is part of the design that makes this a difficult thing to do. While we designed it notionally off the sort of resource extraction approach, really the waste bin is hugely more complex and variable than any resource stream ore body you could identify around the world. We build large nickel plants and copper-concentrated plants and gold plants in difficult places in the world. Those ore bodies, at most, will have three different resources you are trying to get at and the sand lays down nicely on the conveyor belt. Building waste facilities, you might have a bit of plastic on the same measure of belt as a dumbbell and you have to have in place processes that are sufficiently flexible in order to get at the plastic and get the dumbbell out before it damages your systems and gas canisters and things like that.

The other area you touched on is recycled organics, so taking food and garden waste and putting it through a biological process and producing a compost at the end of it which is valuable and useful to customers. That is an area where we are really leading the charge at the moment. There are other companies in Australia who are taking source sorted organics from the garden waste bin and, as I said, laying it out in the sun and then putting it back into urban amenities markets. There is a bit of a push on in Sydney at the moment, in particular, to introduce third bins in order to collect garden organics. I caution that that is something which has to be considered carefully because the Sydney market in particular is already oversupplied in garden organics and there is some evidence to show that, when you introduce that third bin, people do not bother composting in their own backyard any more. They just put the garden waste into the bin so it actually increases the amount of waste coming into the system, which is a perverse outcome.

This is the sort of thing and this is why I welcome this initiative. There really needs to be an overarching objective to how we go about treating waste, because, at the moment everyone is well intentioned and out there trying to do their own thing, but solutions like ours are contingent on getting the right scale and consistency and solutions, even at the granular levels that I mentioned with source sorted organics, can have an unwanted impact of bringing more material into the system that is already flooded; therefore dropping prices down beneath the level at

which it would be economic for someone, and it is not our interest, but source sorted or composters to invest and then you have got a problem. Did I answer all the questions?

CHAIR—That is fine, Brad, yes. I accept the invitation, of course.

Mr Rogers—Please, yes.

CHAIR—That is great, yes.

Mr Rogers—You are absolutely welcome whenever you would like.

CHAIR—Terrific. It is a great facility. On the plastics, was there progress made on them?

Mr Rogers—Yes. Film plastics: I mentioned earlier on that before we designed this facility we went off and studied the waste stream and worked out how much film plastic there was in the waste stream and how much of everything else. One of the main areas—one of the only two that increased from the time that we conducted that study to the time we started receiving waste at scale—was film plastic, so plastic bags, cling wrap, that sort of thing. In the waste study it was three per cent. Now we are receiving nine per cent of our waste as film plastic. There has been a lot of attention on plastic bags and whether we should do away with them. I have a chap who works for me who is President of the Australian Council of Recyclers. His view is that if you ban plastic bags, people will just buy bin liners. People like to line their bins and that is the way it is; 85 per cent of our waste that comes to us is in plastic bags tied up. We have a mechanical process in place for, essentially, slashing those plastic bags and then sucking them off the conveyor belt with a big vacuum cleaner. So we are collecting these things in bulk.

There has not really been a market for that material and so it has been going to landfill, which is a shame because it is all there. The reason that there is not a market and why it is tough to recycle that particular material is that it is often dusted in organics and it is such a thin material that it is quite energy-intensive to actually clean up to a stage that it can be recycled. We have been working with different partners in the Sydney market over the last couple of years and we are at a stage now where we have got a couple of companies who have invested in downstream processes for washing and flaking and pelletising plastic bags and turning it into garden furniture, garden piping and kids' play mats and all sorts of things.

CHAIR—That is great. Thanks, Brad. Thanks very much for your contribution.

Mr Rogers—A pleasure.

CHAIR—Terrific, thank you.

Proceedings suspended from 10.28 am to 10.51 am

WORTH, Dr David John, Convenor, Sustainable Transport Coalition of Western Australia

CHAIR—I call the representative from the Sustainable Transport Coalition. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament and consequently they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. Would you like to make some opening remarks, thanks, David.

Dr Worth—I have a couple of brief remarks, plus an additional piece of evidence that I would like to hand up to you this morning. I would like to thank you and the inquiry for allowing our organisation to appear before the committee to answer your questions and give you a bit more evidence in terms of our initial submission. The impetus for a sustainability charter has really been overtaken by the recent release of the IPCC's latest reports and the urgency now with which we as an Australian community and a global community are facing quite dire changes to our climate. That report also highlights the need for short-term actions to be taken, especially around things such as a carbon tax or a trading system.

In terms of the sustainability charter, we think that it is important to have a charter with targets. But we are worried, and in our submission we say that a lot of work has already been done which should go into the charter and we should just get on with it. I would like to highlight two things, both of which we have been involved with in the STC. The first was the *Sustainable cities* report released in August 2005, for which we made submissions and gave evidence in Adelaide. I think that both sides of politics thought that was a fantastic report; great recommendations; dealt with all the issues that cities need to deal with in terms of energy, water, transport and so on. Yet a year and a half later we are looking at one recommendation having been acted upon. That certainly highlights for me that, if we are having a sustainability charter, we need to have some mechanism for ensuring that there is some progress towards whatever goals are in that charter.

A year and a half later we are seeing issues that were raised in that report coming home to roost: most major cities having issues around providing clean and affordable drinking water for the population; energy infrastructure having been underfunded because often it has been privatised; the great power failure in Melbourne over summer during the tennis tournament lost millions of dollars to business because of the blackouts; public transport systems, once again, are woefully inadequately funded by the federal government in particular.

The evidence that I have handed up to you includes a policy which we released in 2004. I know I had some debate with your members in Adelaide around the issue of oil price.

A number of your members thought that the oil price would return to about $US20 a barrel; it was about $40 a barrel at that time. We have seen the price of oil continue to go up into the mid-$60, about $1.30, $1.40 a litre for petrol in Australia. The public systems have come under great stress. In Perth alone there has been an increase of about 10 per cent use of public transport systems in the last 18 months. I am told by people using the trains from Fremantle and from the northern suburbs that it is a bit like scenes in Tokyo where people are pushed into carriages in

peak hour; there is just not enough room. All of those issues were addressed in your report 18 months ago and there has only been a little done.

At a state level, I see in your public release that you are particularly interested in our State Sustainability Strategy launched in 2003 by Premier Geoff Gallop at an international conference; a world first. I think the report had the most downloads from any website in Australia in that year: great interest in sustainability in 2003. My view and the view of the group that I represent is that that process is a bit like Monty Python's parrot. You will probably hear from the government this afternoon that it is just asleep; our view is that it is dead. There has been very little progress in the last four years on that strategy: great work done by Peter Newman and his team in the Premier's department, bringing together business, community and government; great ideas, great strategy and it has just died from bureaucratic inertia, from lack of involvement by cabinet ministers who have changed portfolios, and so on.

It does leave our group and our members a bit cynical about whether government has enough initiative to move forward and, as I mentioned, the IPCC are saying that governments need to do things very urgently. I have handed up some evidence about our group being particularly interested in Perth. It is one of the most car-dominated cities in the OECD, and we are addressing issues that threaten that and trying to get people to use public transport. We have been particularly worried about world oil production and I have provided evidence there from the US Department of Energy and their website, which I obtained last week, showing that in terms of crude oil and the condensates, it is a bit like the *Beverly Hillbillies*: pop a well down in the ground; the pressure forces the oil up. That is crude oil and condensate.

The world daily production peaked in May 2005 and it has not been able to reach those figures in the last two years. In terms of all liquid fuel—that includes ethanol, tar sands, shale oil, natural gas liquids—that peaked in July last year and has not, once again, been able to be reached. Obviously new production has been brought on stream, but we are finding that large oilfields are declining at great rates. Mexico is the second largest importer of oil into America. Their major field, called Cantarell, over the last 12 months has declined in production by 20 per cent. If you do the maths, in five years it will be down to zero from peak.

The North Sea area, controlled by Norway and the UK, in the last 12 months declined by 13 per cent. Our Gippsland fields declined by about 15 per cent. Saudi Arabia has really been the swing producer in the last 20 years, and their production has declined by 13 per cent in the last 12 months. For the first time ever they have not been able to meet their contracts to Japanese customers. In the first seven months of this year they are cutting what were agreed contract deliveries between eight and 12 per cent to countries like Japan, Taiwan and Malaysia. Even though it was not addressed specifically in your recommendations, our cities rely on cheap liquid transport fuels and this is something that we think should be addressed in any sustainability charter. Thank you.

CHAIR—Thanks, David. I will start by making a comment on your disappointment about the time it has taken to get a good response on the charter. It is shared by me and also I am sure by my colleagues who sit here. Hopefully, Minister Turnbull, who literally wrote the water chapter there and is now the Minister for the Environment and Water Resources, will give it a better response, and we anticipate soon to get some result. I was also asked by The *Age* newspaper a couple of days ago, 'What do I want to see in this federal budget?' I said, 'Well, what I'd like to

see in this federal budget is for government to read that report of August 2005 and enact some of those 32 measures that we suggested.' So we will see, and we will keep the pressure on. Certainly people like me and others around the state will start to ratchet this up.

It is of bipartisan concern and it is serious. I do not think we want to get hijacked totally by global warming. There are many features to that and sustainability that we shouldn't ignore. You are right, I think your disappointments are followed but we are not going to go away on this, so thanks for your comment.

Mr JENKINS—I want to read into the *Hansard* yet again a quote from your submission, which I think is a headline. This is the starting point that you have so enthusiastically continued in your opening remarks:

> A sustainability charter ... should become the nation's second most important document after the Constitution.

I think that that really puts the case where you are coming from. The others had a discussion before I arrived about whether the charter should also be an instrument for the required cultural change in individuals and the actions of families. I think that the urgency is such that the political arguments will diminish. Either people are going to take action themselves or government is going to have to do it at their own peril. How do we go about getting people to get their heads around it? I accept that there has to be leadership with a capital 'L', but assisting that would be the grassroots movement that is pushing as well. You produce all these terrific documents as part of the educative process, but I think you are telling us that we are beyond that point and, if we cannot do it, how can the rest of the globe do it? I know that that is more of a comment than a question.

During the sustainability cities inquiry, we were probably very impressed with the Western Australian sustainability charter. You have given some very interesting background to the reasons for the inertia, and that is people changing ministries et cetera. One of the things that we suggested was that there needs to be an independent ongoing commission that has some status, like every other commission or the Reserve Bank Board or the National Competition Commission and things like that, that just continues on and on. It is given a job to do and it just goes out and does it. Could that have been a mechanism that saved things here?

Dr Worth—I do not think there will be one silver bullet. I think the sustainability charter will be very important. Most of the public are aware that there needs to be change at all three levels of government: local, state and federal. Across political boundaries, there is (1) an acceptance by people that they need to change and (2) a willingness to do it. They are downsizing their cars, they are walking more and whatever.

What you need is a focus for those efforts, like a sustainability commission. Part of that role should also be obtaining really good ideas that can be shared around. I know you have the City of Joondalup after me, but the City of Subiaco is doing fantastic things. They have a sustainability officer. They are giving their staff monetary rewards for not driving to work. If you catch public transport, you get $5 a day extra. People are given incentives that result in a more sustainable city and less greenhouse emissions.

People find ways of doing things. One of the things that your original report talked about was TravelSmart as a travel demand management process. That has not been picked up in federal government policies, but certainly the Australian Greenhouse Office has funded almost every state now to put in place a travel demand management system under various names. In WA that is cutting car trips by somewhere between 10 and 15 per cent, depending on the jurisdiction it is rolled out into. That is, once again, people doing things, and I think you will find that if there was leadership at a federal level saying, 'This is a really important issue and we need to do something urgently,' people will do it. You just heard a company talking about doing it in the commercial sector. But you probably need a focus somewhere, collecting that information, sharing ideas, giving a report.

One of the problems I have at the moment about a carbon trading system is that nobody knows how much carbon we are emitting. No-one in WA is collecting data about how much CO_2 we are actually emitting, so how could we then see what progress we are making? That is probably a roundabout way of saying we can get there, but not on a one by one agency basis. It needs all three levels of government. The general public are doing things already. They are ahead of government on this.

Ms GEORGE—Just as an outside observer—and I raised this with you over a cup of tea—it seems to me that the government in Western Australia has a much better integrated focus on public transport issues. What impact is the investment in, particularly, the rail system having on patronage in terms of public transport options? The other issue is the trial with hydrogen buses that has occurred here in Western Australia. Could you state your views on that trial for the record and whether we should be investing more or less or looking at other alternative fuel options.

Dr Worth—The interesting thing about the move to expand the Perth heavy rail system is that it was initiated by the previous Liberal government, as was the TravelSmart program in Western Australia. Both of those programs were taken up by the Gallop government and continued with, so there is broad support for making Perth less reliant on cars and broad support for making large investments—you are looking at $1½ million—into the heavy rail system. I think there will be an obvious benefit once that southern railway line is in operation, with about 25,000 cars a day taken off the Kwinana Freeway.

As I mentioned, we are already seeing a large move into buses and trains just because of the rise in the price of petrol from about $1 a litre in 2004 to $1.30 last year. That has done two things. Firstly, we have just placed an order for more car rail sets with a Queensland company. It is going to take four years to deliver them, so if things get worse in the next four years, I do not know what we will do. Secondly, the PTA had a program of rolling over their stock of buses, retiring them and replacing them with CNG. They have stopped doing that now. The demand is so high they are not retiring their older diesel buses.

So they are trying to find a way of dealing with extra demand now for public transport, which is fantastic because it means fewer cars on the road but it also means new demands on the budget, because a lot of those are capital intensive—buses, trains and whatever—and that is where we would look for federal government support. Rather than just rolling out new roads, let us put some federal government money into public transport.

In terms of trials, the WA government—and the minister in particular, the Hon. Alannah MacTiernan—has been keen to roll out new trials. It is not only hydrogen, our buses are involved in a biodiesel trial as well, B5 and then B10, which is really important. In terms of hydrogen, the STC is not supportive of the hydrogen project. It too was begun by the previous Liberal government. Hydrogen is not a fuel, it is a carrier of energy, so you have to make a lot of energy to make hydrogen. At the moment there is no clear way forward in that regard that does not increase CO_2 and the key challenge in the next 10 or 15 years will be cutting CO_2.

It is a worldwide pilot. Some of the overseas partners are getting rid of their hydrogen buses and looking at diesel hybrids; electric diesel. DaimlerChrysler is doing that overseas. We are of the view that that money could be spent elsewhere, and 'elsewhere' is biodiesel. A large part of our transport system in the mining sector, in the agricultural sector and in the long distance transport sector is reliant on diesel, and diesel is a fuel where you can make a replacement fuel very easily from agricultural waste; biodiesel. There is a large plant at Katanning in the south-west that uses tallow from an abattoir to make biodiesel. You get almost the same energy output from a litre of biodiesel as you do from a litre of diesel. With ethanol, you have to grow a food crop, and you will get probably a third less energy per litre that you will get out of petrol, so there are all sorts of problems around ethanol. Biodiesel is the way to go.

In terms of the sustainability charter, while the major focus is on urban areas, I do not think we should overlook our regional and rural communities, which once again are heavily reliant on diesel. There are a lot of Indigenous communities that use diesel for power as well as transport; their electricity, their refrigeration, their airconditioning. In some areas of WA the diesel price last year went to $1.80 a litre in the Kimberley.

Those communities could not afford it; they ran out of money. They had to go back to FaCSIA for extra budget top-ups. We need to focus on all of our communities, wherever they live, in terms of sustainability. We do need to find replacement fuels because I think the situation is quite urgent in terms of world oil production, but hydrogen is not the way to go.

Mr TICEHURST—I would like to comment on hydrogen. One of your West Australian members of parliament, Wilson Tuckey, has a plan for producing hydrogen using tidal power, and he often talks about that. If you look at the tides in the Kimberley there is certainly a great resource in energy there. Using electrolysis from electricity produced by tidal power, you could certainly produce hydrogen on a large scale, and it could be at a reasonable price. I do not know the economics of that.

In the US they made a commitment to look at hydrogen as a fuel, and I understand either Greenland or Iceland has reticulated hydrogen for fuelling vehicles. Like any other alternative fuel, it gets down to the cost of producing it. In relation to biodiesel, we had a company in my electorate that planned to produce about 40,000 litres a year, but the sustainability was only related to the fact that there was no excise on biodiesel.

That company has actually established a plant in Queensland with double that capacity. They have now closed our local plant because it was difficult to get demand for bio. You really need to be able to do that on a very large scale to make it economically viable. They in fact were collecting waste oil from the likes of fish and chip shops et cetera, but they were also looking at growing certain types of plants that could be used as a feedstock. There is probably still a

possibility for biodiesel but, because people currently buying oil or diesel are paying an excise tax which does support building roads and other facilities, the day will have to come where alternate fuels will also have to contribute in that way.

I think the public transport system in Perth is terrific, particularly from what I saw going up north with the rail line up the middle, although coming in this morning we faced lots of traffic coming down Wanneroo Road and, as we got closer and closer to the city, there were a lot of cars there with only one person in them, but I did not notice any buses. Obviously, public transport is not providing sufficient needs for people to want to get out of their cars and drive to work. I do not know why one would put up with that every day. Does your group recommend to government what it should be doing, in the sense of giving people the flexibility to go from home to work, or wherever they need to go, on efficient public transport?

Dr Worth—Certainly that is our main aim. We are only a small, voluntary group. I suppose we call ourselves a 'think tank' where we try and look at these issues and how government could respond to them. On the northern line the bus routes take passengers to the train station, so they do not run down the freeway. People then catch the trains down the freeway. The problem there, in fact, is that the carparks are full by about 7.30 am, so that has been one of the limiting factors on usage. People just cannot park anywhere near the train station, so certainly the PTA is looking at that.

Another thing is that a lot of the suburbs on the northern railway line were designed with a lot of bendy roads and cul-de-sacs, so you cannot easily walk from your house to the railway station. Basically, you have to go kilometres around the suburb, back to the train station. Once again, the PTA is looking at trying to cut ways through there to make it easier to access train stations. It is part of old design, I suppose, in the way we designed our suburbs in the seventies.

In terms of hydrogen and alternative fuels, as a transport fuel—and I know that BP has a large plant in California using hydrogen in a stationary energy project to make electricity—in terms of transport, Australians and Western Australians are basically solution-takers, so whatever Ford, GM and Toyota decide will be the car of the future, that is what we will be driving. We feel that having a hydrogen trial here does not actually help us very much because in the end we will be using the technology that other people sell us for cars and buses. As I said, that $11 million I think could be better spent in other areas.

I think it is Iceland that creates hydrogen from geothermal; they have a lot of volcanic energy there and certainly that is a solution for them. I think what we will find, as we move forward in terms of climate change, is that different countries will take up different solutions and countries like France, which has a large nuclear network, will probably continue with that. In Australia I think renewable energies will provide us with electricity at a far cheaper rate and will be easier than nuclear. It is a complex area and, even within Australia, Queensland might decide to do something different and stick with coal, but WA might have a lot of geothermal energy sources not far from Perth. The thing about a sustainable charter is not making it too prescriptive, because different jurisdictions will end up with different solutions.

In terms of the fuel excise, until the legislative changes in the federal parliament to the tax rates last December, there were approximately 40 biodiesel projects ready to go here in WA alone. A number of them were in association with the WA Farmers Federation in terms of co-ops

of farmers. Most of them have been put on hold now because they are not economically viable under the new tax regime. Our view is that, if we want to retain vibrant regional communities and vibrant Indigenous communities, perhaps they should have a different diesel tax regime to what people pay in the cities.

The original fuel excise—remembering that Australia has the fourth lowest fuel excise in the OECD; only Mexico, Canada and America have less—was to reduce the amount of oil after the first and second oil shocks in the seventies. That is why the fuel excise is there. Perhaps we can keep it in urban areas and, for diesel in regional areas, we do not have it, and then we can have biodiesel plants. There are options there for the federal government. That is really a role for the federal government to sort through.

CHAIR—I want to make the comment—although I do not know whether you observed it—that we took reasonable grief politically when the first hikes happened a couple of years ago. There was pressure was to look at non-CPI excise on fuel. We stood firm on that, but there was a lot of political grief towards both sides of politics because we were bipartisan in maintaining the stand on it. However, I have observed that has died out and I do not hear it these days. There was angst, but it went through a phase where people adjusted to the higher fuel prices. I do not get the political grief that I had couple of years ago when it first happened.

Ms GEORGE—I still get the grief about the double taxation element: the GST and the excise, and the impact that has. It is a non-discretionary item for a lot of the people I represent, because the transport links just are not there.

Dr Worth—That is right.

Ms GEORGE—There are huge numbers of people from the Illawarra commuting—about 18,000 a day—and most are using their own cars. The park and drive issue is a big issue, too. Going past a lot of our local stations, you can see cars parked illegally on the highway. There is no allocated area for a park and drive scheme. I think that is something that we need to give more thought to.

Dr Worth—In terms of the fuel excise, I have a couple of comments, and the first one is that we have a very low fuel excise and there is almost no room to cut it any further. In our policy, which I have handed up to you, we are saying it should be raised. That would be a very brave thing. But remember that the fuel excise in the United Kingdom went on an annual increase, which has basically led them to be able to put up with prices of about $3.50 a litre for unleaded, compared to our $1.50. It was put in place by Margaret Thatcher. It was an annual increase which allowed their society to get used to higher prices, and so they got smaller cars, more used to public transport, more rail, and so on.

Secondly, I do not know what it is about the UK, but the leader of the Conservative Party in the United Kingdom last week said that they will be looking at an 80 per cent cut in CO_2 emissions by 2050—not 60 per cent, but 80 per cent. Maybe the politics are a bit reversed there in the United Kingdom.

Mr TICEHURST—There is a more dense population. Australia is more equivalent to the US in terms of area and commuters.

Dr Worth—Sydney and Melbourne are; they are quite dense urban areas. What you will find, I think, Dr Washer, is that the public has responded to price points. As it went through $1 a litre, a lot of upset; as it went through $1.40 a litre and headed for $1.50, a lot of upset; but overall the price elasticity is very low. Basically, people do not stop driving because the price goes up. They might downsize their car but they keep driving it. That is the evidence here, in America and in Europe. That is why it is important that government should set pricings via some sort of taxing regime.

In fact, what is happening in urban areas is that those who are wealthier and those who have better access to knowledge about what is happening on fuel prices are moving to smaller cars and are buying apartments in the city centre here. Those who do not have that knowledge, who are not able to move, who live 50 kilometres out of Perth and have to drive, are stuck in their V8s, and, as prices go up, as they will later this year, they are the ones who will suffer because for them transport costs are about the equivalent of their mortgage and food costs. It is somewhere around that order—20 per cent.

From having studied the oil situation for the last five years and reported on it and given presentations, my belief is that, as we are about to enter what is called the American driving season where Americans jump in their Hummers and V8s and drive on holidays and so on, if Saudi Arabia cannot open their pumps again you are probably going to see petrol prices, not IR, being the major issue at the next federal election. We could be paying $1.50, $1.70 a litre by October, there is no doubt about that. That is why I am saying these are urgent issues and the sustainability charter should reflect that.

Mr JENKINS—I will just make a brief comment about the fuel excise. I think that we are paraphrasing it because I think your document would say that there are other measures that need to happen at the same time.

Dr Worth—Yes.

Mr JENKINS—The people that I represent are the ones that are going to have the greater burden, and I can accept them having the greater burden if they are offered some alternative, but at the moment they are stuck out there on the urban fringe with nowhere else to go. On your comments about the charter, what I am actually interested in is: if we, for instance, use agriculture as a sector—I am sorry, I will just go back a bit. We usually get the debate about water use for cotton and rice and everything, and everybody sort of gets bogged down in that, but if we then step back and look at agriculture as being an important sector, we have got the comment in your submission:

Agriculture—this sector underpins regional and rural Australia as well as much of Australia's exports—it needs to use less inputs such as energy and water or find new crops. The IPCC report states:

> Production from agriculture and forestry by 2030 is projected to decline over much of southern and eastern Australia ...

We have got these things going on, and I am wondering whether, in trying to put in place a charter, we should step back and look at agriculture as a whole, and the people working in the sector can chase the new crops or make the adjustments, because of climate change, and look at

what they are doing where, but that we should still look at the inputs overall. You see them as being important, and I agree with that, but should we pare down or look at regions, or should we step back and look at it in toto?

Dr Worth—I think a federal government would need to look at it in toto and work with its partners in state and local government on regional issues. They are the ones on the ground who have the knowledge. People like the WA Farmers Federation have fantastic knowledge about what is happening in their sector, in the wheat belt and so on, and whether it is viable to have biodiesel co-ops and so on, and I suppose you just need this web of networks really, rather than a document that will set out how everything will work, and that then feeds down to the individual level. I do not know if I am clear about that.

Mr JENKINS—I will give you the chance to expand on it because I am now going to give the contra-argument for buildings. With the built environment I really see two distinct challenges. One is that when we put in place new stock we are doing it appropriately, but the majority of the built environment is dated, either by a minute or hundreds of years, and there is a need to consider how far we try to push the envelope on retrofitting. Even for, say, transport you are making that argument too. The retrofitting is to try to cut back on certain things, and also to expand new horizons on public transport and other methods. Is it sufficient to have the network things going on, overarching, for the built environment or are there going to be special cases where we have to pare down what we put in the charter about what we try and do and eventually get as an outcome?

Dr Worth—Yes, it is a difficult one. You probably do need to pare it down. If the document is complex, how do you manage it and determine whether people are meeting those goals and so on? And I hate to say it, but we need to look at a pricing mechanism. We are saying that in water, we are saying that in energy, we are saying that in oil. If we want people to use less oil, to get smaller cars, to use alternative fuel sources, we need to send price signals to people.

Ms GEORGE—Or at least eliminate some of the perverse incentives that currently apply.

Dr Worth—That is correct. Part of that is gathering the data. In Perth, one of the issues we have around water is that we have all this bore water, people drawing on our artesian basins, and there are no meters. We do not know what people are drawing from those basins. In terms of agriculture, we had a conference in 2003 called Beyond Oil that was looking at agriculture and what were the oil inputs to that and what could be done, because we recognise that we need to feed our nation and we need a vibrant agriculture sector, which draws heavily on oil for not only transport but also fertilisers and herbicides and all the rest. They are all sourced from crude oil.

It is a bit hard to give an answer for every particular thing, but in terms of the built environment we probably need some incentives, as we have given people to get their cars converted to LPG, to convert their buildings. There are ways you can take existing buildings and make them more energy efficient. In WA, for instance, we could make great savings—probably about 30 per cent of our energy—if we made it mandatory for people to have solar hot-water heaters; a very easy thing to introduce to almost any building in Perth and the South West. We have an industry that produces them and exports them, but it is not mandatory to have a solar hot-water heater. That is something that could be done in six to 12 months—very quickly.

CHAIR—David, one of the other issues you brought up is the use of the car parks, which means that people are not using the buses as much to get to the train. I had the impression that if there was a letter-drop done in various areas about the times of bus transport, where it was, the proximity to the area that you talk of and how that linked up with the train et cetera, you would have increased utilisation. Do you have any experience? Is that true? Has that been done?

Dr Worth—They are doing various things. In some stations to the south of Perth they are making the car parks bigger—for instance, near Murdoch, where there will be a new interchange. At the new railway stations on the southern line they are building what is called a transit oriented development, where they actually have small villages at each railway station, so you have some shops and offices and some apartments. That will reduce the need for car-parking because people will be able to walk or take their bike to the train. At other places, as I have said, they have tried to look at changing the urban landscape to provide shorter routes to the train station. I know that on the northern line they are looking at running short bus trips to pick up people and drop them at the railway station rather than have them drive. There are various options being looked at, and it is not easy, because Perth people do like to jump in their cars and drive to the railway station, leave their cars and get the train into the city. It is just part of that culture. I think the other thing that will happen is that, as the price of petrol goes back up again, people will look at alternatives like car pooling or whatever. There are a range of ways of approaching that issue.

CHAIR—That is great. Thanks very much, David.

[11.30 am]

COWIE, Mr Ian, Director, Governance and Strategy, City of Joondalup

HARDY, Ms Rhonda, Manager Strategic Development, City of Joondalup

CHAIR—Welcome to the inquiry. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament. Consequently, they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as contempt of parliament. Would you like to make some opening remarks?

Mr Cowie—Thank you very much indeed. The City of Joondalup is one of 142 local governments in Western Australia and we all operate under the state government Local Government Act. That act was amended in 2004 to introduce a requirement that all local governments carry out their functions to try and meet the needs of both current and future generations through an integration of environmental protection, social advancement and economic prosperity.

Those are the words that are in the act that we follow and certainly the City of Joondalup takes those words very seriously. The act does not actually specify how local governments should integrate these concepts and move forward with sustainability which in many ways is good because it allows local governments the flexibility at the local level to determine how best to move forward. But it is a challenge, as I will come to in a second.

The city has a current strategic plan which has a guiding principle of sustainability, so again we take that seriously. We are developing a new strategic plan and we are going to try to raise the concept of sustainability above the principles to be an element on its own that is highlighted at the very start of the plan and is reflected throughout. That is what we are looking at doing there. We are also looking to implement the concept of sustainability through our adoption of the Australian Business Excellence framework, which is a framework which allows the organisation to try to achieve excellence in a range of ways.

Each of our council reports must comment on sustainability as it goes to council. One of the most difficult things that I have found, as the person at the city who oversights the report process, is how officers are actually able to understand the concept of sustainability and pull the elements together. I think that is the challenge for us when we talk about a charter, when we talk about going forward.

If I could give you just one example of this: we have recently as a city been reconsidering our commitment to community security patrols, where we have security patrols that run around the neighbourhoods making sure that people are safe. The officers who put that report together talk strongly about the social benefits and elements of providing that service. But if you look at it, we have nine motor cars that run 24 hours a day, seven days a week. We have small cars and they are as fuel efficient as we can make them, but you try to balance these things up. It has been very difficult for the officers to try to integrate that. Equally, there is the cost of providing the service

and trying to measure how successful we have been with security patrols in terms of doing other things with our money to get maybe better outcomes in terms of security. So trying to pull the various facets of sustainability together has proved a challenge.

We also have a sustainability advisory committee as one of four committees of council, again to demonstrate the prominence that we give to sustainability. From an officer's perspective—both Rhonda and I support that committee—it is very hard to try to get that committee to look across the various elements of sustainability. The committee tends to want to look at generally environmental, because that still seems to be the flavour of the day; but how can we ensure that, as we look at environmental, we bring other concepts in so we get the balance? That, from the city's perspective, is our opening statement to the committee in terms of moving forward with this concept. The integration is absolutely vital. Maybe if I can pass now to Rhonda, who will talk a bit more about our submission and we are happy to answer questions.

Ms Hardy—On Ian's note, we led in with our draft submission noticing that the *Sustainable cities* report, like our sustainability advisory committee, was heavily weighted to those issues of the environment. Our committee at the time, when they read this report, focused very much to say, 'We also need to look at our social and cultural aspects of sustainability,' which is why they wanted to put in a general statement to you, and also about economic development. Again, that very complex, interlocking system is what we are all grappling with at every level of government.

The thrust of our submission has really been to send home that resounding message of: how do we integrate the three pillars and how do we get people working across them at every level of government and then taking that out into the community so the community can start to come with a balanced view?

That is our key message to the committee. You will see that this particular committee that I was working with last year, who formulated a lot of the comments, also focused very much on the measuring and the reporting which they see as imperative and also again looking not just at environmental, ecological footprint issues for measuring but the social, the cultural and the economic aspects and how we bring those sorts of reporting areas together. That is another level at local government that we definitely are struggling and grappling with today.

We are heavily involved with an organisation called ICLEI, the International Council of Local Environmental Initiatives, and that is like a peak industry body that represents Australia and New Zealand. It is a global organisation that was formed as an outcome of the Rio Summit in 1991. They formed this particular organisation to drive local agenda 21. It was seen that the local government has great powers to implement and communicate with the community to drive sustainability per se. I think ICLEI has provided huge leadership and direction to all local governments.

At the moment they are driving three critical campaigns. One, called Cities for Climate Protection, has been mentioned in our submission. That is now across most of the local governments across Australia. I think 70 per cent or 80 per cent of local governments participate in that. We are all setting our own targets over a 10-year period. We are measuring our baseline usage of energy, both in the corporate and the community sectors. Then what we are doing is

developing action plans to say, 'What is it that we can do to reduce energy consumption over that time frame to meet our targets?'

For example, Joondalup set the target to reduce our greenhouse emissions by 20 per cent by 2010. That is three years from now. We currently have reached an eight per cent reduction since 2001 when we did our baseline. If you apply that to every local government, that is what we are all doing. That is something certainly the federal government would be interested in knowing: how that is working, and see how that could be integrated through the different levels of government, or supported.

They are now taking a similar approach with water, looking at our water, making an assessment of water and then seeing what actions we can put in place to reduce water consumption and set targets for that. Biodiversity is another area that we are looking at which impacts on our ecological footprint. A similar process of these milestones and measuring is the project approach that was taken. I would just like to put that on the table for you to be aware of these very exciting projects.

The other aspect that I think is highlighted is TravelSmart, which certainly you have picked up. We are now doing TravelSmart at Joondalup. We have just introduced that in the last 12 months. That has remarkable, proven—scientific, really—behavioural change patterns that are occurring. That is something that has come out of Western Australia that went to the federal level and is now coming back. We certainly would like to continue the support of TravelSmart coming further down the line and continued funding for that particular program, because it is something that can show that behavioural change programs can be measured and can actually have an outcome.

Ms GEORGE—What impact is TravelSmart having in your council area?

Ms Hardy—We have just started the program and we have funding in partnership with the Department of Planning and Infrastructure. We are going to survey four suburbs of Joondalup, which is about 20,000 residents, and we will look at their patterns of using their cars versus their use of public transport, walking and cycling—other modes of transport. This particular program surveys the people and then those people that pick up the opportunity get a consultant who goes right to their home and sits with them and shows them how they can use the bus, how they can walk to a bus stop: did they know that, if they walked 10 minutes around the corner, there was a deli to buy milk, instead of driving to a shopping centre.

This is the program that we are rolling out, and it has been highly effective in most other local government councils around Western Australia. It started in South Perth. That was the pilot project, six or seven years ago, and that proved that they could measure from those first 20,000 surveys. The DPI and the councils measure the car usage patterns. They then put this behavioural change education program directly into the household and, after 12 months, they go back and measure the behavioural change of each of those households and then come back and tell us, 'This is how much we've reduced demand on the private car and this is how much CO_2 you guys have saved through this program.' But, as I said, it is funded to a level where we can only do 20,000 households and we have a population of 150,000 in Joondalup and 60,000 households. We are targeting 20, 25 per cent. If that funding stops, that is as far as we can go with that program.

Mr Cowie—There have been a number of councils—I think four or five—who have undertaken the program in Western Australia before us. There have, through the DPI, been figures established about the success rate of the program over a year. We are just in the starting phase but we would expect a 30 per cent change in behaviour.

Ms Hardy—That has been the norm.

Mr Cowie—Rhonda mentioned the consultants. The consultants cycle to houses and they have an attachment on the bike which has got loads of brochures and leaflets in it. They do not drive up to the front door and they are really trying to 'live the talk'.

Ms Hardy—They work with the Perth Transit Authority and look at their timetables, and develop mini timetables specifically for that neighbourhood. So people will have their pocket timetable, their pocket map which is specifically produced through this program, and that makes people feel like, 'Wow, this is about me as an individual,' and they feel empowered that they can make changes. It is about that empowerment process that behavioural change and education programs are making, and I think that is absolutely critical in changing our economy to have more sustainable outcomes.

Ms GEORGE—I must say, just on the general issues that you have raised, when I was listening to both Ian and Rhonda I thought that is exactly the same kind of dilemma that we as a committee are facing: what is the scope of the charter? We started with the focus on the environment and it has broadened out to include other dimensions of sustainability and the very vexed question about measuring and reporting. How can a committee that really does not have the resources come to any objective and valid scientific outcomes about how the goals are going to be translated into measurable outcomes and how we are going to report on it? We are grappling with all those issues. You are facing it at the micro level, at the council level.

Ms Hardy—Absolutely.

Ms GEORGE—We are trying to do something at the macro level that has meaning and is more than just a motherhood statement. I mean, we could all sit down and write fantastic sustainability principles.

Mr Cowie—It really is the challenge for us as well. For me, we need to make sure that people think in multidimensions because people are involved in doing some environmental work and that is really where their focus is and then they find it hard to broaden out to see other consequences, other costs and benefits that might arise. One of the other issues that we find is that council is very conscious about promoting sustainability outcomes and is very keen to get on and do things. One of the things that I am very cautious about is that they may jump in ahead of the Commonwealth or state government. For instance, our council has been fairly keen to look at ideas of improving the housing—house orientation; ensuring houses have got eaves, rainwater tanks and the like—which I think is fantastic, but I am cautious that it should occur within a broader framework.

At local government, we do not want individual local governments necessarily jumping in, because in WA you are going to have 142 different approaches by definition almost, and across the country 700 or 800. If the various spheres of government are not pulling in the same

direction, you lose your bang for your buck; you end up competing against one another. We are very keen that we should springboard off state and Commonwealth initiatives and make sure that we are not heading off down a path and suddenly find that the state or the Commonwealth is going down a different path which dilutes our message, dilutes your message, and we come back in two years time and think, ‘That was all very good but how much better it would have been if we could have integrated’—‘integrated’ being the common word for today—‘and moved ahead.’

I think the key there is for us as local government bureaucrats to try and keep a lid on some of our very keen councillors, which is sometimes easier said than done, and it is great that they are that keen and certainly I would encourage them, and try to make sure that we are in step and getting the best bang for our buck. Particularly, in that regard, it is promoting sustainability issues. Our council is very keen to try and market certain issues in terms of sustainability, but I am again cautious. We run some very successful great gardens workshops. We get the local community in and they have a three-hour demonstration of how to save water around the garden and how to be environmentally friendly. That is really fantastic. But if we jump in and start to do our own advertising—and we do not have a local paper that just covers Joondalup, so if our neighbouring council Wanneroo wants to run a slightly different message and put it in the paper as well—the same people are getting hit with completely different messages which diffuse the benefits that we get.

I think that integrating the messages at the Commonwealth, state and local level would be a really great outcome but, again, it is a matter of communication through government forums and the ALGA and the WA Local Government Association meeting with the other spheres of government, ensuring that we are all going down the same path.

Mr TICEHURST—Ian, what is the population in Western Australia?

Mr Cowie—It is probably just a bit over two million. I have been told that we should not lie to the committee, so please don’t send me to gaol on the basis of that!

Mr TICEHURST—Are you saying that the City of Joondalup is one of 142 councils in Western Australia?

Mr Cowie—Yes.

Ms Hardy—Yes.

Mr TICEHURST—Is that sustainable?

Mr Cowie—There is a strong argument that it is not. Indeed, the Department of Transport and Regional Services was always concerned about the number of councils we had over here. When I used to work for the state government a few years ago, I used to have debates with my Commonwealth counterparts and they would say, ‘We’ve amalgamated local governments in Victoria and we’ve gone from 210 to 78,’ and I would say, ‘Well, that’s really good, but Victoria is the size of the south-west of WA and in our south-west we’ve got 22. So how come you haven’t knocked yours down by another’—you know, I think we have to be very cautious. WA is such a vast state and there are so many communities that are isolated and local government is their real connection. Again, it is the balance.

There is certainly a cost to local government and society in having so many local governments, but on the upside they do provide social sustainability for a number of those communities. Whether we want to sustain them or whether we want to move people out of some of those communities is another question which the state government obviously needs to deliberate on and determine.

Mr TICEHURST—You also mentioned that you have got security patrols funded by the ratepayers. What do the state police do? What is their role?

Mr Cowie—There is a great argument in local government about cost shifting between spheres of government, between the Commonwealth and the states, and the state and local government have those same arguments. Some people are inclined to argue that it is a cost shift from the state to local government, because the state does not have the capacity in the police force to adequately police what people want. The other view is that local governments are demanding a service which is a gold plate service and the ratepayers are concerned about security and want something over and above what is a reasonable service provided by the state.

There are two ways of looking at it. About six or eight local governments in Western Australia provide patrols around their neighbourhoods. With ours, we make sure we cover every street once a day. It runs 24 hours, seven days a week, and the people who run the patrols check for issues that could be security problems—lights out, people loitering and the like—and report them to the police. Our people have no police powers; they have no power of arrest or anything.

Mr TICEHURST—In our area in New South Wales, oftentimes if you call the police they say they have no cars available. They might have one car available for an area much larger than yours, and you have, what, seven cars, I think?

Mr Cowie—Yes.

Mr TICEHURST—It is a failure of adequate state resources. You also mentioned that you had your own strategic plan for the area. Overall what I am familiar with is that the state government has overall planning powers and, in our area, anywhere within one kilometre of a waterway the state government has absolute planning power over. Do you have an alignment with the state government planning proposals? Does your strategic plan align with any state government strategic plan for your area?

Mr Cowie—The strategic plan element of the state government's activities is the State Sustainability Strategy, which I imagine the state government representatives will raise with you and talk about this afternoon. The state controls planning in WA, so the state is the responsible body for both the residential and the commercial zoning of land and subdivision.

When we talk about developments and how they might impact on the environment and sustainability, the local government has certain delegated powers from the state to do certain things, but we work within a range of policies that are set by the state in terms of that. We make comments back to the state such as, 'Development in proximity to the Yellagonga Regional Park.' If parts of that land were in state ownership, we would make recommendations to the state. The strategic plan that I am talking about is a more general directional plan for us, but there are planning issues and we try and fit in with those as well.

Mr TICEHURST—You also mentioned water tanks. Does your council have a policy on residential water tanks?

Mr Cowie—A number of our councillors were very keen. We did a fair bit of research and we have found that, unless you were going to be installing really large rainwater tanks, the very small tanks would do only one water of the garden and then they would be empty for the remainder of summer. The problem partly is that the price of water is so cheap that, with the cost of putting in a rainwater tank, you do not really get the bang for the buck.

The sustainability advisory committee has considered the matter, and I think it has looked at what a couple of other places have done. Goulburn in New South Wales was one we looked at, which was involved with rainwater tanks, from memory. But I think they are going to leave it. My view is that again that is something that we should be coordinating with the Water Corporation. The Water Corporation is the body responsible for water usage, and if we were to give, say, some rate incentive or provide some other subsidy for ratepayers to take up these options, it would come better if it were coordinated, again integrated with another body.

That gets back to my point: if we go it alone, what we do is just a drop in the ocean and we are likely to find it not being very successful. It would cost us a lot to promote and I do not know that we could sponsor it quite as well as the Water Corp, which is obviously a much larger entity than we are with much more ability to deal with such things.

Mr TICEHURST—I'm pleased to hear that! You have made the right decision, in my view. The Water Corporation was one of the facilities we visited yesterday, and they are an excellent and efficient organisation. I am pleased to hear that you have gone down that road, because I think in New South Wales it has become almost the flavour of the month. It became an issue in our last state election, and it has to be the most cost-inefficient way of providing a small amount of water. I think what you are doing is quite right.

Mr Cowie—That is what we try to do in terms of sustainability. We try to say, 'Look, we have to look more broadly at it.' It is not just catching a little bit of water; it is what is going to be the economic cost and the social cost in terms of having massive great rainwater tanks in fairly small and dense urban areas. Those issues come into play.

Mr TICEHURST—The other issue that came up when we were looking at the gas-methane power station is that you could only use the renewable energy in certain parts of the council area that were contestable. I thought we had a national electricity market where the contestability issue now was such that any user could buy electricity from any provider in the country for any purpose.

Mr Cowie—That is the theory, I think.

Mr TICEHURST—But in practice that is not happening.

Ms Hardy—No.

Mr Cowie—I am not able to talk in detail on that.

Ms Hardy—We were advised recently by a councillor from Fremantle that, as an individual, he can buy green power from Synergy, I think it was, on a domestic level, but Western Power, which is the biggest supplier, has put those sorts of rules in place. They are also the regulator of power in Western Australia. I am certainly going to go back and do some more research around this. I saw an ad recently in the paper, and I am sure it was Synergy that was saying, 'Come and talk to us about purchasing green power,' when I was under the same impression; that it was only commercial entities that could get it; that had a huge baseload that in Joondalup could be provided to them, which is obviously what you were told yesterday. Those four buildings have that baseload that makes us contestable, which is why those four buildings get green power but none of the other council buildings do.

Mr Cowie—You need to pursue that with the government this afternoon.

CHAIR—Ken, can you remember to ask that question.

Mr TICEHURST—I certainly will.

Ms GEORGE—When you look at the three different levels of government, we have enormous clout in terms of procurement policies. I had a hell of a battle just getting a standard car fitted with an LPG tank, which I finally won through on. The government fleet; recycled paper; a whole range of services and goods that councils purchase. Do you try and integrate any of those sustainability principles in terms of the way you operate as a council?

Mr Cowie—Certainly, yes. In terms of our tendering documentation, we look at sustainability and try and assess projects in that way. We are cutting back on our fleet. We have introduced hybrid vehicles, and we are going to increase the numbers of those, and we are reducing the cylinder capacity of the fleet. We are doing whatever we can to try and make sure that the fleet is as small and as efficient as possible.

Ms GEORGE—Is that pretty common, in your experience, across local government over here?

Mr Cowie—I think we are one of the leaders. I think we have moved more than most. A few councils have hybrid vehicles. In local government senior people have historically been given V6s or V8 Commodores, but we do not do any of that. Those big cars are being completely phased out of the fleet. We certainly recycle paper.

Ms Hardy—Yes. Earlier I mentioned the ICLEI campaign, the Cities for Climate Protection. What is so valuable about that program is that it gives us the power at local government to set an action plan that council endorses. That action plan has all those things you are asking for: looking at how we can reduce and improve our fleet, recycling paper and toner and all those sorts of things. We even recycle cork.

All of those things go into the quantification and abatement of the targets that we set for reducing greenhouse gas emissions. Because we have a planned approach, which has been endorsed at a council level it gives us, for a start, the mandate to drive sustainability outcomes. That is why I believe that Joondalup has been very progressive and successful, and is being seen as a leading council in sustainability. This has been a particular focus for the last five years,

because our strategic plan, which we mentioned earlier, set a direction that we wanted to become a community and council that was sustainable, and recognised as being sustainable. We set that huge vision and those goals into practice five years ago. We had support at every level of council and, because councils are autonomous to some extent, we were able to achieve what we have achieved. I am not saying that we have done it all; we still have a long way to go.

Ms GEORGE—Could you send us some of the paperwork, in terms of when you first drew up the vision statement and an example of one of the action plans, just to give us some ideas?

Ms Hardy—One of them is to develop a green purchasing policy, which we are doing. Is that what you mean?

Ms GEORGE—Yes, could you just take it on notice and send it through to the secretariat?

Ms Hardy—Some of our action plans?

Ms GEORGE—Yes, just some of the practical things you have done.

Ms Hardy—And how we have done it?

Ms GEORGE—Yes.

Ms Hardy—Yes, certainly.

Mr Cowie—We are just reviewing our plan, so we will send you our evaluation of the old plan and a draft of what we are looking at for the new plan as well.

CHAIR—That is great. Thank you.

Ms GEORGE—Thank you.

Mr JENKINS—I have a few questions. The first one, which I do not think I should really ask, is: what is your relationship with your local federal member? I was interested in your critique of the inquiry into sustainable cities. I know you are respecting these proceedings because they are like proceedings of the House, and you have been warned that giving false or misleading evidence is a serious matter. I am really just one shattered committee member, who was part of that report, that we should have such a criticism that it was really too environmentally focused. Seriously, though, this is not the first time that we have had that comment made during the sustainability charter inquiry.

That is of interest to me because we seriously set out to have that wider scope of sustainability, including social and economic—and even adding a fourth pillar in talking about governance matters and the like—so it is good to get feedback, especially given that it is not only the feedback from yourselves as officials but your reference group. I thank you for that. It is a lesson in the way we convey messages. Whilst we are the House environment committee, right from the start of the sustainable cities inquiry, we understood the need to integrate all these different aspects.

I have a few questions along that line. For instance, what sorts of indicators of wellness might you use for the Joondalup community for an individual's health and things like that? What are important indicators that give you an idea of the community in that respect?

Mr Cowie—We have a range of indicators. Currently, I think we have 34 key indicators. Again, it is one of the things that we are very cautious about, because in terms of trying to measure our performance as a council—as against what the state government does in health and what the Commonwealth does in health—it is always very difficult to try and pull out. It is possibly easier if we send you all of our key indicators, if that is okay.

Mr JENKINS—Yes, that will be fine.

Mr Cowie—Rather than try to remember the wording and get it wrong and go to gaol.

Mr JENKINS—No, I am happy with that.

Ms Hardy—We report annually our KPIs. The KPIs that Ian was talking about have emanated from our strategic plan, so all the objectives of our strategic plan have some qualitative and quantitative indicators attached to them. If one of them is the level of safety or security, there are some KPIs. They have now been measured over three years. We have got a graphical representation of how we fared and, as I said, we can send all that to you and you can see how they are under environment, community and economic; they have all been done in that way. It is good that we now have some longitudinal evidence that is starting to build up.

Mr JENKINS—We see the task of the charter is to get an environment where different spheres of government would know what the direction is—which is the point that you have made—but many of these things are through cooperation between departments of different spheres of government, and health is one of those clear areas. The experience of the Western Australian sustainability charter, which you mentioned alongside the Swedish experience: earlier today we had criticism of the Western Australian sustainability strategy in that there was a green inertia. It was described—

Ms GEORGE—Dead?

Mr JENKINS—that the parrot was not asleep; it was dead. It was a fairly graphic sort of comment. What is your comment about that as a framework which would cover two spheres of government in this state?

Mr Cowie—Certainly the State Sustainability Strategy led to the insertion of the sustainability clause in the Local Government Act, which I read out to you initially. Above and beyond that, I am not sure that the sustainability strategy at the state level has been of great relevance to local government. A lot of it focused on regional development commissions in Western Australia, as bodies trying to work and integrate sustainability concepts throughout regional areas. But, as I say, it really was a state government document and I think local governments have seen it in some ways as that, rather than a document to embrace at the local level. Does that answer your question?

Mr JENKINS—Yes. As director of governance, how much does the work of the National Competition Commission—or those policies—impact upon the work of the City of Joondalup?

Mr Cowie—We are certainly conscious of competition, in terms of our obligations under the state's commitment to the national competition policy—through an agreement that local government signed with the state government, clause 7—and otherwise. We certainly make sure that, when we are looking at undertaking any sort of major activity, we are not being anticompetitive, that we are pricing things appropriately, and that we are not giving unfair advantage to internal business. We take those things very seriously and endeavour, as best we can, to make sure that we operate on a completely competitive and neutral footing.

Mr JENKINS—So if we had a model that involved an arm's length sustainability commission that drove things in a similar manner, do you believe that that would be an appropriate mechanism?

Mr Cowie—I think it could well be. The key will be what the commission is charged with and how it actually carries out its tasks. One of the crucial things, in my experience, is that it does not matter how good your bureaucratic processes and structures are, a lot of it gets down to the personalities of the people who are involved with these types of bodies. If the people on that body approach local government in a way which is superior—and that is quite often the way other spheres of government and the bureaucrats treat local government—immediately local government hackles go up, and it does not make for good relationships. In theory, it is great, but certainly the personnel will be crucial.

Mr JENKINS—That is why I gave national competition as an example. At the end of the day, local government really was not invited to the table; it was through the states. You gave me clause 7, and we could put something like that in place, where there is something that draws you into it.

Mr Cowie—I think that is crucial. I think it is really important that local government is effectively engaged, not at the individual local government level but through the WA Local Government Association or Australian Local Government Association, to get that commitment, because I think that everybody is in agreement with it and it is just a matter of the views of local government being listened to in terms of the practicalities of the implementation.

When I worked at the state level, working with local government, often I could see something as being quite a good idea but it was always really good to work closely with local government people because they could then turn around and say, 'Look, if you do it this way it's going to be far more efficient and have far better outcomes.' I have been involved in some community engagement from the state level, for instance—I will not name the department—where they said, 'Well, we've met with local government. We've told them what we're doing. How can they be upset?' I said, 'Well, you actually told them what you were doing.' They said, 'Well, what shall we do? Shall we hire a couple of consultants from local government to go out and tell them that we're good guys?' 'No, you actually don't get it, guys. You know, if you want to engage, you've got to engage. You've got to be open to listening.'

Mr JENKINS—As people working at the coalface, is the climate change stuff taking sustainability over or shouldn't we worry about that?

Ms Hardy—Originally, the Sustainability Advisory Committee was heavily socially focused. If I go back to three or four years ago, there was a prevailing issue with community engagement and consultation, particularly in Joondalup, as an outcome of a few major issues that we were dealing with. So the sustainability committee focused on how do we improve community consultation engagement and that social side of the aspect, and they worked on that for nearly two years. I have seen a massive change in the last 12 months. We have a new sustainability committee, a new council, and they have very much swung to the environmental side, yet we also have a few people on the committee who have come from an economic background. They are businesspeople and they are there to say, ‘Hang on, what about the business side of things?’

This is what I am finding. I am finding change and I am finding different sets of power as the different people move into the council and into these committees, depending on what the issues are at the local level at the time, too.

Mr JENKINS—Thank you, Chair, for allowing me to lead the witness like that.

CHAIR—That is all right. You had a minute to go and you did very well, Harry. We are out of time but thanks very much. I would like to ask a question on TravelSmart. It seems that that is an ideal place for local government to market directly on the ground. I cannot think of a better type of organisation to do it. So hopefully we will have a look at that funding and make sure we do the right thing, so I might touch base with you later and talk about that.

The other question, just briefly: you mentioned your KPIs. The sad thing with this is if you get great KPIs, your shares go up, you get rewarded. In what way do you get rewarded for having great KPIs and showing improvement—financially, that is—from state or federal or whatever the governance is. Is there some reward?

Mr Cowie—The main source of local government revenue from another sphere of government is the Commonwealth grants which come through the state local government grants commissions to local government. There have been a number of suggestions over the years that those grants be at least partly weighted towards the effectiveness of the individual local governments and why should other spheres of government prop up local governments which are being ineffective, which gets back to the question about the number of local governments we have got and how effective they are.

The Commonwealth has never seen fit to move on that principle, believing that the principle of horizontal equalisation is superior. Certainly there is a lot of inherent merit in the argument that, if you are doing something good, you should be rewarded for it. That is the way I try to treat my kids. I want to support them when they do great things—‘Great, that’s really good.’ I cannot think in any direct way that we get supported for—

Ms Hardy—We really did it off our own bat, to develop a corporate reporting system, because we saw it was something that was not being done and we needed to show accountability and transparency and we wanted to show our community and our council every year that we were actually achieving what we said we would do in our plans. Instead of going out and doing a plan—and most people say it sits on the shelf and gathers dust—our plans, we can honestly say, ‘Well, they don’t,’ because each year we measure them and we measure how we are going and

we have the KPIs to show that. So it is a part of good business excellence to do that type of stuff and that is why Joondalup is doing it.

CHAIR—Thanks for the great presentation and great discussion.

Proceedings suspended from 12.16 pm to 12.50 pm

LEWIS, Mr Terrence Ray, Principal Policy Officer, Sustainability Division, Department of Environment and Conservation

TAYLOR, Mr Kimberley James, Deputy Director-General, Department of Environment and Conservation

CHAIR—I welcome the representatives from the Western Australian government. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament. Consequently, they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as contempt of parliament. Would you like to make some opening remarks? Thank you.

Mr Lewis—Yes, we would like to just outline where we are coming from. In introducing this, I would say that I have been in the sustainability area for now 2½ years and had previously been in the regional policy division in the Department of Premier and Cabinet where I was quite heavily involved in sustainability issues in terms of regional policy. I moved formally into the sustainability division, or the sustainability policy unit as it was then, in Premier and Cabinet, which was subsequently transferred to the Department of Environment which then became Environment and Conservation, in the middle of last year, and in that role had responsibility for advancing the state's sustainability agenda by way of the State Sustainability Strategy which was released in 2003 in September.

I think it is important to say that we are here to present views on the basis of our experience over the last two or three years in sustainability in Western Australia and in my role in the Department of Environment and Conservation, which is currently forming a sustainability division—and we are still working on the development of that. We are not purporting to present views here that are a state government position, but to provide the benefit, I suppose, of our experience of the issues that we have addressed in advancing the agenda over here in the last couple of years.

Certainly the state government is interested in the notion of an Australian sustainability charter, or whatever it ends up being called, because of the potential implications for the state government. So, in making preliminary statements, I suppose my interest particularly is that the issue was not canvassed explicitly in the discussion paper. I am mindful that this has arisen out of the Sustainable Cities Initiative and I was interested in the focus in here on the water and energy issues and what have you, with not a great deal of focus on the economic and social issues which complete the triple bottom line—although, of course, in dealing with the water and energy, transport and built environment issues, as we have been in the last few years, there are obviously inextricable links between the environmental, economic and social issues, and we

have much to do with that in the partnerships that we have with local governments in developing sustainable communities.

The issue of particular interest to us—certainly to myself, at this stage—having seen how the State Sustainability Strategy has been advanced within this state as a document endorsed by government but not a document that was a legislated document for implementation, is taking that type of thing to a national level. There is interest in seeing what level of authority would be attached to a national sustainability charter in terms of responsibilities of state government, its interaction with other state governments and with the federal government, and also the mix of issues that are being suggested in here and the strong implications for the community, and then looking at issues like incentives for states—which are two quite separate issues—in terms of bringing communities along, engaging communities, having them involved in sustainability matters, often at a level which they do not initially perceive to be of great substance, and then looking at the other aspect of it, and that is the more pragmatic issue of providing incentives for states to actually work towards the implementation of aspirational ideas and targets.

It is an interesting mix of a number of things which I think will need to be very carefully worked through to ensure that it is actually applicable to doing the sorts of things we are seeking to achieve, but there is little doubt that it is long overdue. It can only benefit the community as a whole and the nation as a whole, and so we are very happy to be at the table and presenting some views. We have, in effect, addressed the questions that you have posed in the discussion paper, and I presume that you might like to explore some of those, but, as I said, I wanted to lay out those sorts of issues, which did not appear to be addressed in here, in terms of the actual functionality of what a charter might be.

Ms GEORGE—In the *Sustainable cities* report, one of the recommendations that we made for governance relationships into the future was to have an independent body, separate from government, headed by a sustainability commissioner. I thought it was pretty much the model that you had here in Western Australia, but I understand you no longer have the separate sustainability commissioner, and I would be interested to understand the reasons why the government has departed from that model.

You made the point that the sustainability principles were not legislated. My understanding, going back a few years, was that the plan was at some stage to incorporate those specific principles into some form of legislation, so I would like your comments on that.

We have had a diverse range of views this morning. The message coming certainly from a number of presenters this morning seemed to be that the sustainability strategy appears not to have reached down to the level, say, of local government or the community in a very tangible way, so I am interested in how you are monitoring the outcomes and whether the strategy is working, or how the government's arrangements, in the absence of an independent body oversighting the progress, is working.

Mr Lewis—The document was launched in 2003. It is a very substantial document and no doubt you have had a look at it. We never had a sustainability commissioner in this state. We had a sustainability roundtable. It was headed by Professor Peter Newman, who had in fact been the director of the sustainability policy unit in the Department of Premier and Cabinet and had been the main architect of the sustainability strategy, which of course involved a very great number of

people coming together to develop that document. The Sustainability Roundtable was established in early 2004 by cabinet, to continue at least until the end of 2006. In the middle of 2004 there was a draft bill developed.

Ms GEORGE—Yes, I thought I saw a draft bill.

Mr Lewis—Absolutely right; there was a draft bill. When I got involved in this side of things, I did attend the Sustainability Roundtable meetings and also had a good look at the Sustainability Bill, and the notion is so embracing and it is impacting on so many people throughout the community and there are so many different agendas.

It certainly appeared to me that it was premature to go ahead with the bill, for instance, enshrining in legislation things like a sustainability roundtable where there was no certainty that that was the best mechanism to drive an agenda like this. Our conclusion has been that maybe it was not necessarily the best mechanism to do that and so the government, towards the end of last year, resolved that having gone that far and with the move of the policy unit into the new department and with the new department then looking at how it might take the whole agenda forward, that it was subject to review. We are still in the process of determining what would be the best body to drive it forward.

I can imagine some of the comments you would have had from some of the other people here. There was a perception that the sustainability strategy was to be driven completely by state government. There were times when people would be saying, ‘Why isn’t the Premier saying something about sustainability?’ Our view was, ‘Well, we have the strategy. It is up to us to now implement it.’ It was difficult in some areas because it is a complex issue and one of the other issues I have raised in the comments that I would like to forward to you subsequently is that the language—and you picked that up in this document here—is extremely important. For instance, the strategy has a large number of principles and benchmarks in there, but in many respects it is almost in an elitist language associated with the people associated with sustainability.

What we have found over the time is that, while people have been able to make use of it, they have not embraced the individual ideas to the extent that they felt comfortable about them being part of their policy within their organisations. Notwithstanding that, agencies over here have done a huge amount of work on sustainability, almost in parallel with the strategy but without actually using it as the fundamental basis for advancing the ideas. This is a very important part of it because if we are going to have information that is going to be of value to bringing community members along with these initiatives—because although government may drive a lot of these large initiatives, we really are going to have to bring people along at all levels and we are seeing that with our water issues in terms of going from the top end of industry and government down to individual households.

These are complex matters to be able to advance in the context of a sustainability strategy where many people have many interpretations of what it means. Another issue about the strategy, and this is an important thing in terms of the charter also, is that I do not believe that a sustainability strategy is going to work in its entirety unless it is clearly an integral part of the strategic management of all levels of government, and you refer to that in here. The question is: how do we get that and not be just another initiative like occupational safety and health and equal opportunity which, particularly in large bureaucratic organisations where we have very

longstanding established processes for driving policy, we then have all these complementary initiatives which are expected to be done but are never, in my experience, fully integrated into the operations of the organisation. They are always hanging off the side.

One of the things that has been a dilemma over here is that many agencies, both in the state government and in local government, have developed sustainability officers and the rest of the organisation has sat back and said, 'Great, that's cool. They can do the sustainability. We'll get on with the business of life.' It is very important, in my view, that however a charter is developed—and this brings back that issue also of bringing in the incentives and what have you—it has to be more integral to the strategic management processes that are adopted either by parliament and by federal government agencies and by state government agencies and by local government and also by business, because if it is not, I believe it will always be seen as something to the one side and yet it is actually germane to the direction in which this country is going in terms of its strategic issues, but then translated back into the very detailed operational issues which combine to actually deliver those strategic outcomes we are talking about.

One of the things that we are looking to do at the moment over here in our role is working with other state agencies and recognising that, for instance, the key thing that drives decision making in our state is the strategic planning processes of agencies which are needing to be linked to the state government's strategic planning process of Better Planning: Better Futures, through the budget process, which in fact only primarily looks at a four-year horizon; and through the annual reporting process which seeks us to report on what we have achieved in the last 12 months and where we are going in the next 12 months and some longer-term issues.

The problem with that is that sustainability is not about a four-year horizon, it is about a 30-year horizon. So if those are the mechanisms for developing out our policies, although we do have some long-term strategic issues, particularly in the resources area with very long projects, in many areas—education, health et cetera—we are looking strategically, but not from necessarily the sustainability point of view of bringing all the issues together. So what we are looking at doing there is trying to bring into the agency management approach a greater capacity to reflect, within budget processes, on strategic planning and the other mechanisms, the capacity to look further beyond the outcomes continuum, which is all that sustainability is doing; looking further along the outcomes continuum, developing some very long-term views and then bringing them back within the budget process to the here and now.

Ms GEORGE—But who is in fact measuring the decisions of government in the short term against the aspirations which are longer term? Conceptually, I think you have to have a body that is independent of government, to whom government is also accountable at different levels for the decisions they make.

Mr Lewis—To date we have had the sustainability roundtable. That has been largely comprised of people outside of government and also CEOs of agencies have been invited along. In the end of 2005 we actually did a review of the actions that were outlined in the initial State Sustainability Strategy. There were 336 actions identified and they were pretty strategic issues to be addressed. We in fact found about 95 per cent of those actions had been either completed in their entirety, were in a process of being fully incorporated into the ongoing operations of the organisations or else they were well under way.

The dilemma with that was that we had 336 actions which were largely to do with the state government. The State Sustainability Strategy is about state government, business, community. That is another issue that has to be grappled with in terms of having a broader charter, but how do you ensure that that is the case? One of the issues with the State Sustainability Strategy is people often read into it the idea that it was the state government's sustainability strategy while it is not. Once again, the language is very important. Certainly the roundtable undertook that view of measuring the achievements against the actions that were outlined in there. The problem with doing that though is that you end up identifying 336 actions in a busy list and if you had had a somewhat different combination of people who were being brought together during the formation of the sustainability strategy, I will guarantee you would have had a different 336 actions.

So this is the point that I am making: I believe it has to be more acceptable to the key stakeholders and decision makers so that it is not something sitting to the side where they select a few things and say, 'Look, we want to go and do these things.' It has to be broad issues which all agencies have to look at. For instance, climate change: what is the health department over here going to do in terms of addressing climate change? Are there implications, for instance in the police department which is looking at a sustainable future for their organisation? Is climate change going to have any impact on the sustainability of them in terms of delivering their services across the state of Western Australia? What are the implications for our education industry in terms of climate change?

Unless it becomes inculcated within those areas in that respect, what happens is that we end up with a host of little actions which may be very major in themselves but they certainly do not embrace the complete core business of the organisations which we are trying to influence.

Mr TICEHURST—With this sustainability charter, are you aware of any other states who have gone down the same path that you have?

Mr Lewis—I think all the states have addressed sustainability in similar but different ways. We met in the end of 2005 and it was evident there that all the states really had quite different approaches to sustainability. Certainly Western Australia is the only state which has sought to produce a document of the magnitude of the strategy, which certainly is very far-reaching in what it seeks to present and pull together.

The interesting thing also is that that document is a strategy but it needs to be implementable. There is a big difference between developing a document which conveys a notion of what you want to do and actually having a capacity to implement it. That is what we are grappling with at the present time.

Mr TICEHURST—Sure and I think from a federal point of view, a sustainability charter would by nature have to be broader than what you are looking at. You are really looking at it coming down to almost a 'doer' level where you have specific actions in there that would be the responsibility of certain government departments. For each area, that would then be different and different regions would have different requirements as well as responsibilities, so at a federal level it would be much broader; more conceptions rather than absolute actions.

Mr Lewis—That really flags the issue of ensuring that we choose the right sorts of strategic issues to address, because one of the other dilemmas is that, because sustainability can impact on so many walks of life, if we are talking about enhancing the overall quality of our life and having an enduring quality of life in Australia, then you can just about relate it to everything. But the value of a national target would be to pick out those very key issues and then keep them simple in essence of what we want to have as outcomes, then let those stakeholders who will be well beyond state and federal government—it will be local government and industry; I mean big stakeholders in these—bring their own expertise and forms of input to bear on implementing that.

I think that is the secret of it: making it sufficiently generic in essence of what we want as outcomes so that each body can actually look at the implications for themselves and see how it impacts their policy-making and their functionality and then build that into that so they can say, 'We can contribute in this way,' and take ownership of it. Quite candidly, that is really what has been lacking to date over here, and that is by no means a criticism. It is simply that we are only a couple of years down the path and it is proving to be a difficult issue to translate. I suppose what I am reflecting is the sorts of issues that we have tussled with and were not aware of when we started, thinking it was perhaps relatively more simple than it has turned out to be.

Mr TICEHURST—Do you find big business has come along with you? Were they involved in the formulation of the strategy; and large government corporations?

Mr Lewis—No. With most things like this, there were some large corporations in government that were not as involved as perhaps they might have been, so I would say that one of the key ingredients here is that, in developing a national framework, it will be absolutely critical for people who are developing that to be good listeners and not tellers, because we have suffered a bit from that. We must be developing frameworks that are sufficiently engaging for people at all levels to want to come on board. It is so easy for people just to dismiss and say, 'It's too hard and our views are not being taken account of,' and move away.

Yet, independent of that, over here there has been tremendous involvement by business and there has been tremendous interest by business in moving into the area of sustainability. But I think we have a little way to go yet before we can actually claim to be well integrating the views of business, government and local government in a way that gets the synergy of those groups working together. There are pockets of that, but it is not as widespread as I think we could achieve ultimately.

Mr TICEHURST—Yesterday we saw some practical examples of sustainability and renewable energy applications; one in particular, the methane application on the edge of the rubbish tip, where they are producing fairly substantial amounts of energy. But it would appear that the market for using that energy was being inhibited by a government organisation that is also the regulator, so that we had certain applications of contestable useable electricity and it determined where that electricity could be used. I understood that the National Electricity Marketing objective was to make all energy contestable from all applications, but that does not appear to be the case here in WA.

Ms GEORGE—Was that Western Power?

Mr TICEHURST—Yes.

Mr Taylor—That is an area outside our immediate coverage in terms of energy and electricity policy in Western Australia.

Ms GEORGE—But in terms of the sustainability strategy, surely one of the fundamentals would be to argue against the notion that all people that want to purchase green power should be able to have access to it?

Mr Taylor—But you appreciate that governments make decisions on energy policy on a raft of matters and they are matters which are outside our direct coverage. We have an Office of Energy and other parties that advise government with respect to policy in those areas. Certainly we can contribute and make comment with respect to what the implications of government policy are on sustainability and the implementation of sustainability but we do not have a major role in advising government.

Ms GEORGE—So your sustainability strategy does not go to the issue of renewable energy and its procurement?

Mr Taylor—It would, but it is not necessarily the dictating factor for government in determining its energy policy.

Mr JENKINS—Would the greenhouse unit at your division have a comment about it?

Mr Taylor—I am sure we would. I am sure we would advise that to government in the process of government's deliberation of energy policy.

Mr TICEHURST—What about in respect of local government? Would the sustainability umbrella that you have also have implications for local governments?

Mr Lewis—Absolutely, and we are in the process at the moment of forming a state and local government sustainability partnership agreement. We have identified a whole raft of areas where there is great merit in the state and local government having a very close partnership in advancing sustainability outcomes. The other point that you were making just then about the issue of the involvement of organisations is that again it is a reflection that we, like all other states and also the federal government, as I used to work there years ago, are to an extent silent and we focus on the areas of responsibility we have. What sustainability does is that, ultimately, it forces the breaking-down of some of those barriers.

As I said earlier, we are a couple of years into advancing the sustainability and I think that it is going to take some time to actually develop the synergies that you are referring to in terms of ensuring that everybody is working from the same piece of music in terms of the actual ultimate outcome.

Mr Taylor—So it is fine to have a charter and the goals and aspirations, but how you actually operationalise that and get it implemented through all of the business of government is the area we are finding challenging. Terry commented earlier that people are saying we are looking to try and make it more tangible. We are trying to go from the high-level statements and goals and

aspirations and say, ‘How do you operationalise that and get it part of the day to day operation of government in doing its work and interacting with the community and with local government to achieve these outcomes?’ That is the biggest challenge for us at this stage.

Mr JENKINS—How does it help breaking down the silos to have a sustainability unit hidden in the sustainability division of the department?

Mr Taylor—There has been a decision in government to take it out of Premier and Cabinet and put it in the Department of Environment and Conservation which, particularly with respect to the environmental elements of sustainability, particularly if you are looking at water, energy, ecological footprint and even transport, we can have an influence across all of those areas. What we are seeking to set up, through the use of portals and networks and other interactions, is a capacity to assist all parts of government and local government to apply sustainability into what they do. That is the key challenge for us: how we set up a framework and an operation which connects across all of the elements and drives that throughout Western Australia.

Mr JENKINS—In our discussion paper we mentioned your definition of sustainability:

> Sustainability is meeting the needs of current and future generations through an integration of environmental protection, social advancement and economic prosperity.

How do you go about the social advancement and economic prosperity part of it?

Mr Lewis—It is advocating that when organisations are seeking to advance their policies they do not take a singular view of the issue confronting them. Our resources industry is a classic example of that, where I suppose it would be fair to say for many years there was a singular focus on economic justification for developing resources. The industry itself has started to take a much broader view and seeing the social implications of its development of resources and also the environmental implications.

It has been easier to highlight the issue of the environmental implications because we have a department of environment which has some fairly stringent regulatory and statutory responsibilities. Quite rightly, the social implications are often harder to get people to grapple with, because most of these issues arise out of infrastructure which is to do with resources or the built environment.

Certainly we have been addressing this in terms of a lot of community development, and we have partnerships with a number of local authorities here, in addressing areas where economic decisions made in the past by private sector or governments have resulted in communities which are not truly sustainable. They have low levels of education, low levels of health outcomes, high levels of unemployment and what have you. We have been singularly quite successful in bringing together a whole host of state government agencies to work with local authorities, who have initiated enhancements to their communities by suggesting they will put up public buildings, and we have actually turned that around to them looking at the outcomes of the services which would be delivered into those communities to address the dilemmas which they have, which are making them in effect non-sustainable, and then seeing whether ultimately the manifestation of that might be a public building. But we are putting in place the mechanisms to deliver the services that are required.

In terms of issues other than that, I think it comes back again to this issue of getting into the policy-making areas of these other organisations the need to recognise the social implications. We have a big issue over here—not only in Western Australia but in other states—of this notion of fly in, fly out of employment into resource development areas. That has big social implications. That question that you are asking is key to the issue that we were talking about earlier of saying we need to have it in a language that actually gets built in in some way and gets accepted by all forms of government and industry. That is a real trick. It is really difficult to get people to embrace concepts in such a way.

I will give you a very simple example; the definition that you just quoted. For a lot people in the community, when you talk about meeting the needs of current and future generations through integration, the first question they ask is, 'What do you mean by integration?' They do not have a clue what you mean by the integration of those things. What are you trying to achieve?

If nothing else, it has brought home to me in the last couple of years that our language in this is going to have to be extremely careful in order to literally be meaningful from that level to this level. In terms of our response, we feel very strongly that, yes, there must be aspirational statements to set the boundaries of what we want to do but then accompanied by the targets, to let people see what we are reaching for and also to provide the feedback mechanisms to enable business, government and community to see that we are making achievements.

An essence of this is that nothing succeeds like success, and we are going to be able to promote success. As Kim was saying, one of the issues we are looking at here is to work with agencies to actually change the language, because—and this relates to the question from Jennie George also in terms of the independent body—I am not sure that an independent body is going to be able to force people to do things. The thing that is going to change people to do things is to have a commitment and to want to do it, and that is what our experience is over here.

We are seeing tremendous initiatives being taken up by local government and by government agencies where, even when they are working within their organisation—which is focused on their core business delivery—there are people within the organisation who have a really strong sustainability focus, and they are being successful in influencing their organisation to shift their direction.

Ms GEORGE—I do not think those two issues are mutually exclusive, though. I understand the point you are making about integration and how you translate a fine set of principles into achievable goals and outcomes. Maybe I am being unfair to you, but the impression I got in some of the submissions made today is that where things are happening, even at the local government level, they are happening independent of the State Sustainability Strategy. It is not having a direct impact, other than the amendment to the Local Government Act which requires local government to take sustainability issues on board.

Mr Lewis—You are perfectly correct, and I would not deny that at all. That is why I am saying that we have not cracked the secret of—

Ms GEORGE—Do you think submerging the division into the department is helping to bridge that gap?

Mr Lewis—Into this department?

Ms GEORGE—Yes, if it had been a separate body that had some overarching roles and accountability measures.

Mr Lewis—The perceived benefit when this unit was in the Department of the Premier and Cabinet was that the Premier had the authority to speak to his portfolios and ask for things to be done, and they got done. The value that we saw—and this was a decision by government for us to move—was that most of our successes were coming from our engagement with people. In one sense, it did not matter whether I was in Premier and Cabinet or Environment and Conservation, because I am still engaging with the same sort of people now and I am still building up a network of people who are embracing the concepts, but it is a small network. It is a small network simply because we are early days.

The other value of this is that, going into this organisation, the people in the Department of Environment and Conservation already have a strong sustainability perspective from environment. What I am looking to do is leverage off that and utilise that resource, because I think people within the agency, given time, will see different perspectives also in terms of how they address environment. They will see to a greater extent some of the social implications and some of the economic implications and it will become part and parcel, so we will be infiltrating a whole lot of agencies.

Mr Taylor—A key requirement going forward is facilitation. Our role in the department is to provide that facilitation, as much as we can, across all the parties. If you have a separate sustainability commission as such, which is setting the high-level goals and is monitoring reporting, I do not necessarily see that they would actually be getting into the facilitation and making it happen. So I think you need a facilitation party to get all the parties to come together and to play and to do the right things. We see our role within this department as being that of facilitator across the state, but equally, if there are blockers to implementing sustainability, which you were highlighting then, there needs to be a mechanism or a capacity to identify those blockers and for those to be addressed as well in government.

I am not sure how we would be doing that in this state at this stage. We have that key facilitation role and, if we were to become aware of blockers, we need to feed that back into the government processes so that they can be addressed through—

Ms GEORGE—Is the roundtable still functioning? Is that still in the systems?

Mr Taylor—We are moving to what we are just calling a sustainability advisory committee, which will be an advisory committee to government, but certainly that would still be a body which receives these blockers and can recommend courses of action to government to address those as well.

Ms GEORGE—Would you have the opportunity on major cabinet submissions to give a sustainability focus?

Mr Taylor—Yes.

Ms GEORGE—It was interesting that one of the local governments this morning was saying that every report they give to their local government has a sustainability criteria attached to it.

Mr Taylor—It is not formalised but it is something that we would look at as part of our programs. We are encouraging what we call sustainability assessments for major state projects. We have only done it a couple of times, and we still have a long way to go, but again we would encourage government down that path for particular sustainability assessments of major state developments and major state projects.

CHAIR—Kimberley and Terry, thanks. We are almost out of time. I would like to ask a quick question: there was an audit undertaken on federal agencies in terms of green procurement. In some areas we did fine and in other areas we did not shine so well, as you can imagine. You have mentioned your agencies at least 10 times today and they have large responsibilities. Have you undertaken similar audits or are there recommendations on so-called green procurement, because you are, like the federal government, big money-spenders in these agencies.

Mr Lewis—The State Supply Commission over here has a charter for sustainable procurement. It is in the formative stages. In fact, I am in the process of discussing with the people within our organisation about how we can work with the State Supply Commission to bolster the issue of sustainable procurement. It is an area which can be developed much more, there is no doubt about that. But it is starting and, as with many other agencies, they are grappling with the issue of how they do it. You are right, it is a very big area of expenditure in government.

CHAIR—Gentlemen, thanks very much for your time. I appreciate it.

[1.32 pm]

FERGUSON, Mr Paul, General Manager Business Services, Water Corporation

HUMPHRIES, Dr Robert, Manager Sustainability, Water Corporation

CHAIR—I call the representatives from the Water Corporation. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament and consequently they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as contempt of parliament. Would you like to make some opening remarks? Before you do; on the record, your corporation yesterday was fabulous to us, and thank you.

Dr Humphries—We are happy to have been of help. I will lead off, Mr Chairman. You are probably familiar with the Water Corporation but it is basically a corporatised state utility and delivers most of the commercial and domestic water services for Western Australia. There are a couple of minor exceptions to that. We have the challenge of an enormous operating area, a third of the continent, and the business has a very large influence on the wellbeing of people, the state's economy and obviously the natural environment; because our infrastructure occupies it, we take water from it and we return wastes to it as part of the business.

The Water Corporation takes sustainability—the logic and the application of sustainability—extremely seriously in the business. We have been actively thinking and behaving in that space since about 2001. Probably the leading driver for that was the effectively very serious decline in the environmental availability of water in south-western Australia. I have a document here which is really a work in progress which I am happy to table. I am talking to it quickly. Basically just to show you, I think you have all seen the famous graph, but that caused very serious reconsideration of the way we did business in terms of supplies as well as the effects of our activities on the environment and the ability, in contrary terms, of the environment to actually support the business. To be slightly colloquial, it sort of focused the corporate mind.

In addition to that, as a primary driver we had a lot of other challenges simultaneously. There was finite financial and other capacity and we are in the context of a still declining natural environment, which I think all state of the environment reporting nationally is showing: increasing community concern; more regulatory complexity in actually getting projects approved; major industry reforms on the water sector, which have changed the way we have done business; much increased demands on employees because there was a very strong capital project response to those difficulties; and, right now, with the current boom in Western Australia, difficulties in recruiting and retaining staff. So all of those conjoined to really have us consider whether or not pursuing business as usual was a viable proposition. Our executive and board really concluded that it was not.

Our response has been to set up a structured sustainability strategy which is in place but as an adaptive document and approach. It deals with all aspects of the business, although to be completely honest we are not fully there yet but I guess everywhere from finance to human

resources to infrastructure to operations are under the microscope and being progressively reformed. A brief description of where the Water Corporation has got to was delivered to the Auswater conference in March in Sydney. I will table two papers: one by my colleague Paul Ferguson; and one by me and other colleagues. That gives more detail than we have time for this afternoon.

A key thing that's very important is to define what is meant by sustainability. There is a lot of very vague talk about it and in our view the concept is fundamentally simple. It is complicated to address but simple in concept—that is that the biosphere contains human society as a subset of it, which in turn contains the economy. So economic stability and a civil society, with people being healthy and happy, simply cannot be maintained if we effectively chew up the natural capital of the environment. That is the key concept underpinning our sustainability approach.

Clearly, it really involves paying the environmental debt of our activities but finding socially and financially viable ways to do that. We clearly cannot bankrupt the business. At a global scale, I do not need to emphasise the point that we are overdoing it as a species and global warming is a strong manifestation, but there are lots of other elements of dysfunction. So the business response to that—or the community and business response really—needs to be a systematic dissection of what those problems are and, effectively, a compensatory or restorative action.

Our view of sustainability really is the bullseye model that Porritt has published, and that is in this paper. In relation to the terms of reference of this committee, we strongly support a sustainability charter for the country. However, we do offer some suggestions in terms of the logic and approach that might be used. Firstly, at a higher level, the charter needs to have an agreed concept of sustainability that everybody can sign up to; and a statement about what we want to sustain, for whom and for how long, because the whole concept of sustainability is very context-dependent. By that I mean that, say we are talking about sustainable irrigation—the debate that is happening about the Murray-Darling Basin at present—if the environment fails to supply the water, no amount of improvement of irrigation efficiency will give us a sustainable irrigation business, and the same is true of urban water. Obviously there are other bigger issues like that.

Relating to those two points, the key themes for targeting then need to logically map back to the things that are important to sustain. They will obviously be around achieving stability and viability of key ecosystem processes, supporting the legitimate social and physical needs of people that support a civil society and, obviously, having a healthy economy which does not operate at the expense of the other two. We also suggest that a strong dialogue to come up with strategic visions aligning with the sustainability targets is an important part of the dialogue that we need to have nationally. Canada is doing that better than Australia at present. Dr David Suzuki has an environmental compact with a 30-year vision for air quality and human health and all sorts of other things which even businesses who may be acting in an adverse way are quite happy to sign up to because I guess the future state is sufficiently in the future for them not to be frightened by it. But unless we clearly articulate what we want Australia to be like in 10, 20, 30, 50 years time, we are going to confound the argument at least and probably just shamble around on it.

The other key point is that the governance structures and processes to deliver the targets really have to be very rigorous. I think we have learnt some big lessons from the decade of landcare where the Commonwealth Auditor-General reported, if my memory serves me correctly, that for the investment of over $380 million we had got enhanced community awareness, which is a pretty high price to pay for simply making people more aware. We really need to be very targeted in terms of ensuring that we are driving delivery of improvement in all of the things that we choose to improve.

I have made the point that the elements of a vision of a sustainable Australia need to be broadly agreed and accepted by the majority of people, governments and business. We suggest that perhaps some form of a compact or social contract may be a useful mechanism to support this or perhaps a COAG agreement. There are a variety of mechanisms which I will not go into but I am sure that the committee understands them better than us.

Lastly, agreeing on and then pursuing, monitoring and publicly reporting progress against goal in the key target areas is essential; we would suggest, in a highly public and regular way, a bit like stock market reports and financial reports. If we are serious about this, the normal government reporting processes will not work because 98 per cent of the population never read them.

Ms GEORGE—I cannot blame them.

Dr Humphries—No, that is true, deputy chair. But I think some innovation in that area would be important. Briefly, some suggestions for key target areas—and this is far from complete and we would be happy to come back formally to the committee with a more fulsome submission than these few pages of notes—and useful areas for consideration we would say are ecological footprint in the sense that it is a synthetic measure of whether or not we are increasing or reducing their overall impact on the physical environment. The water industry in Australia is considering a customised version of that. It has not been agreed yet. As a major component of ecological footprint, greenhouse gas emissions in the net sense are very important.

Water balance: we are already doing that to a degree through the national water audit under the Australian Bureau of Statistics. Measures of the health of biodiversity are obviously also important, and probably some measures of landscape integrity and connectivity, particularly for southern Australia where we have really fragmented the landscape and caused the related problems of salinity and rising watertables; also, some measures of social and societal wellbeing. We are not going into any detail but there are a couple around. One is the genuine progress indicator of The Australia Institute—I think Clive Hamilton was the author of that—and there is an emerging measure called social footprint which is an analogy of ecological footprint, and I will provide full references to those, too. That is all I would like to say, thank you.

CHAIR—Thank you.

Ms GEORGE—Thank you very much for your constructive input into the challenges that we face. I must say that, on the ground, the examples that we saw yesterday of the desal and reuse of water, the trial that you are going to do in terms of recharging the aquifer, has kind of left me feeling that it is a state government instrumentality that seems to know where it is heading.

Dr Humphries—We are probably less confused than we were.

CHAIR—You did a good presentation.

Ms GEORGE—Yes. One thing that did intrigue me, before getting onto some of the things that you have mentioned today, in terms of sustainability, you are blessed by having the capacity for the aquifer solution to your water problem. But it seems, from what I was picking up yesterday, that we do not really have any measurement to what extent the bores that are being sunk in backyards are impacting on that available water supply into the future, particularly with declining rainfall and the problems with that. Are you giving any thought to better monitoring of the bores and maybe putting limits on what households can use? Everywhere we went in these brand-new developments, it was nice to see very green grass but it is probably coming at a high price. I just thought there was a bit of a missing link in the sustainability project in terms of accessing bore water.

Mr Ferguson—Maybe a bit of clarification of what we do versus what other people do in the state. We are a utility and responsible for providing water services. The management of water resources actually rests with the Department of Water which is separated from us. They regulate the use of water resources across the state and we are responsible for providing those water services within all the constraints that operate.

Ms GEORGE—So I am asking the question of the wrong body.

Mr Ferguson—It is a relevant question. From the point of view of Perth being a little bit different than other places in terms of rainfall and climate, if the use of those bores was restricted in some way, that is going to fall back onto us as a utility service provider to pick up the difference. It is quite likely that people are using more water from their local garden bore than they would out of the scheme, notwithstanding they have invested capital in putting it in in the first place. So that would probably push the demand down. It would have a significant impact on us in terms of the demands placed on our scheme to deliver water to the general population.

Ms GEORGE—So you would be making up the balance.

Mr Ferguson—We would be making up the difference, basically, yes, and it would have to come from somewhere. The difference would be that the water quality that is often used in developed areas is from the superficial aquifer and close to the surface; it does not have any sort of localised environmental impact. Clearly, in the broader sense, if it is lowering watertables, then there are quite considerable impacts. But I guess the real people to direct that question to are the Department of Water.

Dr Humphries—We would say, though, that there is a case for better regulation of those bores and also probably better integration with private wells into public water supply. A matching regulatory regime of watering days and so on.

Ms GEORGE—I will not pursue the issue of pine plantations with you then either. Obviously, that is not in your bailiwick either.

Dr Humphries—We would be quite happy to see them gone, from our point of view. But I guess they have got to be replaced with something.

Ms GEORGE—In terms of practicalities, we heard just before you from the department and the State Sustainability Strategy. To what extent do the state principles and strategies have an impact on your thinking as a pretty important corporate player in the state delivering water services?

Dr Humphries—We have been very careful to align with those, although the sustainability journey I described for the Water Corporation really predated the State Sustainability Strategy. We had intense dialogue with the people doing that work while it was developing, and I am comfortable that what we are doing is in no way in conflict with it and we are very supportive of their efforts.

Ms GEORGE—Would you have done what you are doing anyway or did that—

Dr Humphries—I think so, yes.

Mr Ferguson—We would have done it anyway, yes.

Dr Humphries—It was much more a survival issue for the Water Corporation at the time.

Ms GEORGE—In terms of progressing where we go from here, part of the dilemma is that you can write a fantastic statement of sustainability principles but the extent to which it actually gets integrated into people's operations and practice is another matter. How important is a carrot and stick approach to really driving change?

Dr Humphries—The papers we have tabled answer that question, in part, but we have our own set of sustainability principles which we map like this—I will table these. There are 18 of them, which sounds like a lot, but they map the environmental, social and economic elements, as well as stakeholders, ethical behaviour and good governance systems. There is a front nine, which are outcome related principles, and a back nine. We are systematically applying these principles as a test of all business decision making, no matter in what area. It is, effectively, a fundamental and simplifying element of governance. You do not need necessarily high levels of detailed work instructions or regulations if people are simply reflecting on and testing their business thinking—whatever their business is—against a set of robust principles.

That goes back to the point I made in the introduction—that there really does need to be an agreed set of principles which then effectively radiate out to all parts of government. It forces integration. To give you a small story, I had a discussion with some of our pricing people and I asked them what the social and environmental effects of a proposed new water service pricing regime would be. They said, 'We don't know; we're pricing experts.' I said, 'We'll help you, but we really need to investigate that, because a particular pricing regime may either be driving wastage of water or it may be disadvantaging socially poorly-off people.'

Every decision is connected, and these principles help force the joining up of the thinking relating to that. Even if somebody does not have a particular interest in or expertise in the environmental aspects of their issue, our emerging governance system is driving that. My view,

which is a personal one and not a Water Corporation one, is that we really need to apply something similar in government. We are operating, effectively, in parallel universes, at both state and Commonwealth level amongst agencies, with quite severe dysfunction being caused from time to time because of conflicts in resourcing, or emphasis, or whatever.

Mr Ferguson—A couple of practical examples: the planning we do for future assets now, for water supply, wastewater and drainage are all done on a sustainability basis. We do not just pick the lowest net present value solution that will satisfy the minimum regulatory requirements; we consider the environmental, social and economic specifically and we map that out. That has driven some significant changes in the way we approach planning, the way we talk to the stakeholders and the community about what is planned, consider the environmental impacts and any offsets that might be applicable.

You may be aware that the south-west Yarragadee aquifer is potentially the next major source for the integrated water supply scheme for Perth. That has been the most extensive sustainability study that has been undertaken for a water source in Australia at least, if not broader than that. It took a number of years, but the government is in the final throes of considering it at the moment. There was a separate sustainability panel which oversaw it, and provided some separate advice to government, as well as the environmental advice.

We have been conscious of practical application of sustainability principles into our business. The business has always been sustainable to the extent that we have always had a view, in terms of water resources at least, that you cannot take out more than is sustainable, otherwise you are going to run out and you will have to find something else. Particularly on a state wide basis, where some of the resources are quite small, if you do something that adversely affects that, then finding something else can be extremely expensive, as well as being disruptive in terms of social and environmental implications. They are just a couple of examples of the things we do. I heard before some mention about the supply chain and how we approach that.

Dr Humphries—We have, compatible with state supply, a project to green the supply chain. It is not very advanced at present, but there is a lot of dialogue within the water industry generally about improving procurement practices to drive that sort of thing. I think there will be quite significant change over the next couple of years.

Mr TICEHURST—For the last 30 years I have been living on tank water. One of the first things you learn when you move from the city into a regional area is that if you turn the taps on and nothing happens you have to change your water use practices.

Dr Humphries—Yes.

Mr TICEHURST—You generally find that that happens very quickly when you have to then go and source water in a hurry. With the application we saw yesterday, essentially with desal we were told that there was a 20 per cent increased cost in producing that water compared to, say, recycling. If you have these plants along the coast you have an almost infinite supply of water, subject to the available energy. There is a business unit, so if you were a commercial business you have an opportunity there to encourage water use rather than to have programs where people would use less water. Is that part of the thinking of your sustainability—that you will have programs where households would be encouraged to use less water through education?

Dr Humphries—Yes, that operates at several levels. We have statutory watering restrictions—although they are the mildest of any mainland Australian city at present—and that is a curfew of two days a week, depending on house numbers. We also have a Waterwise campaign with subsidised water efficiency appliances, including rainwater tanks, low-flow shower heads and five-star rated dishwashers and things. The key point is that the cost of new water sources now—and it does not matter what they are, be it the south-west Yarragadee aquifer which is currently under public debate, desalination, or using the same sort of technology to reclaim wastewater as Queensland is actively pursuing now, and we are doing to a smaller extent—are so expensive that demand reduction is actually a better business outcome. We are not particularly tempted to simply produce infinite amounts of water for profligate use, because it does not make financial sense, let alone environmental sense. I do not think there is any water utility in the country that is trying to sell more water; quite the contrary.

Mr Ferguson—We have specific targets for consumption per person or per annum, which we are currently pretty close to in terms of efficient use of water across the state. Our focus may be a little different than some others. Because the majority of the water is used by residences—and I guess part of that comes back to industry putting in their own bores and use of groundwater—our focus has been on garden watering, hence the two day a week sprinkler roster, which has brought consumption from 180-plus kilolitres per person per annum down to currently 155, which is being maintained at that level. I think it is likely that the two day a week restriction will stay into the future, no matter what source capacity we have.

We have a program which educates people in schools. We have Waterwise schools who go through a program, so there is an educational component. We have recycling targets as well, in terms of the proportion of wastewater that we recycle. The standards for recycling of wastewater here are very high. Our plan, as we told you about yesterday, is to put it back into the Gnangara Mound. Basically, the requirements are that it has to be desalinated before it goes back into the ground. When you are doing that you are talking about the cost of seawater desalination and recycling which is different, because if you have to desalinate it before you put it back into the ground then you have the same or a very similar cost structure. The differences are about transportation and the source. You have the ocean on the one hand and a wastewater treatment plant as a source on the other hand, but one of the big issues in terms of the costs is how far you have to transport it, because of the infrastructure, particularly in built-up urban areas. It becomes quite expensive and socially, and sometimes environmentally, disruptive as well to do that.

Mr TICEHURST—You mentioned water tanks. Are you providing support for water tank installations?

Dr Humphries—Yes.

Mr Ferguson—The government subsidises water tanks.

Mr TICEHURST—Throughout the state?

Dr Humphries—Yes.

Mr TICEHURST—Is that an efficient way, though, to store water?

Dr Humphries—Not particularly for a Mediterranean climate. It is very expensive, but there is a lot of popularity for both that and greywater recycling. I think that the best solutions are very location specific, quite frankly. In Sydney, which is supposed to have rain all year, small tanks work quite well, but we have seven to eight months of no rain here, so the tank has to be very large. Because most of Perth is built on a sand plain, you have a free tank underneath your house, so why would you build one?

There may be some grounds for smaller tanks for maybe greywater capture and back into toilet flushing and stuff, but there is a cost-benefit argument in that which differs from state to state and even within parts of Perth. People up in the hills behind Perth mostly have rainwater tanks, but they are quite uncommon on the coastal plain. Adelaide has about 50 per cent of its housing stock with tanks, and they have a similar climate to us but with very little groundwater.

Mr JENKINS—I had two questions but Mr Ticehurst, in asking his question about growing a market versus getting people to reduce their use, has reduced it to one. I wish to preface my one question by saying that you have given us a lot of stuff to look at. The business principle wheel as a way that the corporation goes about its decision making is very interesting. My question then leads away from the wheel, but as a corporation there is an expectation that you will pay a dividend back to government. Is that right?

Dr Humphries—Yes.

Mr JENKINS—I am a bit worried that, in the government setting a dividend, it will impinge upon the way you are able to go about your very thorough governance issues.

Dr Humphries—Certainly the Water Corporation is not self-determining. We, for example, have to get Treasury agreement to our borrowing levels. Unlike normal companies, water utilities have to predeclare their dividend at the beginning of the trading year. You do not work out how well you have done at the end of it and then decide how much you distribute. You get signed up at the beginning, which adds an interesting rigour to the business.

Paul might like to comment on this, too, but I think that there is increasingly better dialogue about these things, and one thing that that principal approach is driving is lowest whole-of-life costs rather than cheapest net present value. That is beginning to influence our own capital decision making, and that may mean 15 to 20 per cent more capital because you may be able to adopt a gravity solution instead of a pumped one to moving water around. We have those debates within the corporation, obviously, but I think we are engaging people in Treasury with the same sorts of ideas, and our economic regulator here.

Mr Ferguson—A lot of the things we do intrinsically have a social dimension to them. The pricing for water, which the state government makes decisions on, has a lot of the implications. I am not telling you anything you do not already know about pricing, but there are a lot of social issues embedded in that in terms of the affordability of water for people on low incomes et cetera compared to a stepped pricing structure—the more you use, the more you pay. People who are using a lot of water are paying the full cost almost.

Dr Humphries—Just the rice growers of Dalkeith!

Mr Ferguson—But I think we have a reasonable autonomy in terms of how we go about our business. I do not see at the moment any impediments to us in terms of our approach to sustainability. In terms of the planning we have been doing recently, taking a sustainability approach has not necessarily added significantly to the cost. It just makes us more aware of all the issues that we have to deal with, to make sure that we are not trading off the economic versus the social or the environmental. We want to make sure we have a positive outcome on all of those. I do not think there are any constraints at the moment that prohibit us from doing what we are doing, other than the normal constraints that operate in any business in terms of availability of funds to do what is required.

Ms GEORGE—Do you have some understanding with government about the level of reinvestment in capital and expansion and—

Mr Ferguson—We have a really significant capital program. It is in excess of $4 billion over the next five years. We have invested in excess of $1 billion in the last decade in new water sources, as a result of climate change. A desalination plant opened today. I think an understanding of the implications of climate change and its impact on our business is becoming really clear to everybody, and we have not been precluded from making those investments that are necessary to provide the services that we are required to provide.

Ms GEORGE—With a booming state economy, you do not have the same pressure on government as the other states.

Mr Ferguson—Yes, but the investment in the decade up to, say, 2004 before the economy was booming was still $1 billion. So we are making those sorts of investments anyway, in terms of making sure we can cope with the growth as well as the negative impacts of climate change, particularly on water resources because the inflow from our dams has dropped by 75 per cent.

Ms GEORGE—I have heard the argument expressed by others in Mal’s and Ken’s part of the chamber that the reason why there has been a lack of planning for the future is that in some state jurisdictions the call of government on the profits of the state instrumentalities has been more important in terms of priorities than allowing them to reinvest in—

Dr Humphries—I am not sure that that is actually true. What I think was more important—and this was certainly a discussion within our organisation—was the perceived risk by the senior executive and the board of potentially investing in a white elephant if aggressive infrastructure capacity increases were paid for and then it started raining again.

We have been fortunate in the sense of having very persistent low availability of environmental water. That enabled us to go to government and say, ‘Look, we’ve got no way of predicting the future. This is very serious. If we don’t start investing now, we’ll really be in severe water shortage.’ The Premier took over the water portfolio at about that time and things really began to happen, but there was significant activity even before that period.

I do not think that same dialogue has been had in south-eastern Australia to the same degree. The climate change predictions for south-eastern Australia are, in a superficial sense, more benign than for the south-west. They are talking about a 10 per cent reduction in rainfall over 25 years, and I think people just sort of internalised that as thinking, ‘Oh, that’s reasonably easy to

adjust to. It'll be linear and gradual and we'll have a soft landing instead of a stepped-down change like we've had here.' Of course, the south-east actually has had a stepped-down change, at least related to the El Nino drought, which has sort of snapped them out of that thinking.

That is not meant in any way to reflect negatively on our eastern water colleagues, but I think it was more about being concerned about being embarrassed about overinvesting in things as well.

Mr Ferguson—I think that some of the biggest issues we are facing getting our new water sources off the ground are social and environmental; not the financial so much. You always have to convince people that what you want to do is a valid investment in terms of the services we are required to provide. We operate under a licence. We have to meet certain conditions. The investment of capital funds is always pretty well scrutinised from inside the organisation as well as outside.

In terms of new water sources in particular, talking about new dams is not on because you do not know where the rainfall is going and you have no reliability. Nobody wants to build any new dams anyway from a social and environmental point of view. So then you have to diversify into other options, and you saw a few of them the other day. We made it clear that any industrial use down at Kwinana has to come from recycling. With the desalination plant, we are looking at different options from those we might have looked at a decade ago. We are making sure that we have a diverse view of what those options are, that they are sustainable, given what we know about climate change—at least for the moment—in terms of the future and that they are economically viable, socially acceptable and environmentally acceptable. We want to make sure all of those things come to pass.

Dr Humphries—Could I just make one comment? The community does not understand the link between energy and water very well. Water is really heavy stuff and the water industry is a very large user of mostly electricity. In acknowledgment of that, for an urban water utility in Australia the greenhouse gas emissions related to the use of power for the movement and water and wastewater would be between 60 per cent and 80 per cent of their ecological footprint. Sydney has done some rigorous work on it. We have basically accepted their numbers without doing our homework. That logically means that, if you are serious about sustainability, you need to address that issue. That began dialogue in the Water Corporation which actually did not take very long to resolve.

We have committed to greenhouse neutrality by 2030. I think we can quite easily achieve it sooner than that, but then our finance people and potentially people in the economic regulation authority, asked us, 'Have you got a social licence for this, because it may cost more if you are buying renewable or other sources?' We just last October I think it was carried out a statistically valid community survey here.

After people were talked through the relationship between moving water and the amount of power it takes, and that the Water Corporation is the second biggest user of grid power in Western Australia, they simply said, 'Yes, we want you to be greenhouse neutral. Yes, we want you to do it tomorrow.' And irrespective of financial status of the interviewee, they were willing to pay up to $20 per service more. Our estimate is that it would be about $6 to do it, which is

way below the rate of inflation in terms of water pricing, so it gives us a lot of confidence that we are on the right track.

Ms GEORGE—I must say, I was a bit sceptical about desalination in terms of the energy import and the brine, but those concerns have been somewhat allayed by what is happening in practice here and I think drawing to the wind farm to the extent that you have committed to do probably takes a lot of those concerns and provides a bit of an impetus for renewables to get off the ground, if you have major customers like the Water Corporation drawing on their reserves.

CHAIR—Gentlemen, time is certainly up. Thanks again for your hospitality yesterday. We appreciate that and a good presentation today too. We wish you the best for the south-west area.

Resolved (on motion by **Ms George**):

That this committee authorises the publication of evidence given before it at public hearing this day.

Committee adjourned at 2.13 pm