
COMMONWEALTH OF AUSTRALIA

# Official Committee Hansard

# HOUSE OF REPRESENTATIVES

## STANDING COMMITTEE ON ENVIRONMENT AND HERITAGE

**Reference: Sustainable cities**

THURSDAY, 29 APRIL 2004

ADELAIDE

BY AUTHORITY OF THE HOUSE OF REPRESENTATIVES

**INTERNET**

The Proof and Official Hansard transcripts of Senate committee hearings, some House of Representatives committee hearings and some joint committee hearings are available on the Internet. Some House of Representatives committees and some joint committees make available only Official Hansard transcripts.

The Internet address is: **http://www.aph.gov.au/hansard**

To search the parliamentary database, go to:
**http://parlinfoweb.aph.gov.au**

**HOUSE OF REPRESENTATIVES**

**STANDING COMMITTEE ON ENVIRONMENT AND HERITAGE**

**Thursday, 29 April 2004**

**Members:** Mr Billson *(Chair)*, Ms George *(Deputy Chair)*, Mr Barresi, Mr Cobb, Mr Hunt, Mr Jenkins, Mr Kerr, Mr Lindsay, Ms Livermore and Mr McArthur.

**Members in attendance:** Mr Billson, Mr Jenkins and Mr McArthur

**Terms of reference for the inquiry:**

To inquire into and report on:

Issues and policies related to the development of sustainable cities to the year 2025, particularly:

- The environmental and social impacts of sprawling urban development;
- The major determinants of urban settlement patterns and desirable patterns of development for the growth of Australian cities;
- A 'blueprint' for ecologically sustainable patterns of settlement, with particular reference to eco-efficiency and equity in the provision of services and infrastructure;
- Measures to reduce the environmental, social and economic costs of continuing urban expansion; and
- Mechanisms for the Commonwealth to bring about urban development reform and promote ecologically sustainable patterns of settlement.

**WITNESSES**

**Committee met at 10.28 a.m.**

**FISHER, Mr Ian Matthew, Convener, Urban Ecology Australia**

**ROBERTSON, Mr Michael, Board Member, Urban Ecology Australia**

**CHAIR**—I declare open this public hearing of the House of Representatives Standing Committee on Environment and Heritage. This is our inquiry into sustainable cities 2025. This is the 10th hearing of the inquiry. Gentlemen, thank you for coming. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings in the parliament. As such, they warrant the same respect as proceedings in the House itself. It is customary to remind you that the giving of false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. On that cheery note, would you like to make a brief opening statement or introductory remarks in support of your submission?

**Mr Fisher**—Yes. Thank you for this opportunity. There are just a few key points we would like to emphasise further to our submission. Firstly, the matter of cities and sustainability is core business for Urban Ecology Australia and has been for the last 12 years or so that we have been in existence. Something I am sure you already know is that, from our perspective, the way we design, build, live and work in the typical modern city is deeply implicated in many, if not all, of the serious environmental issues we confront. In particular, for Australia, we point to the issue of a high level of design dependence on the private car and fossil fuel powered road transport in general. This dependence, together with a projected decline in world oil supplies, we see as a matter of serious concern for the future.

However, given that cities also deliver a great many benefits, our message is really a positive and a practical one. Just as much as the contemporary city is a locus for problems, equally therefore we see intelligent planned change to our cities as a tremendous opportunity for improving our sustainability performance. In terms of how to go about that process of change, we recognise that there are many laudable activities and programs going on at the moment to improve sustainability outcomes in specific areas of city performance such as energy, water use, public transport, building design and so on.

Despite the benefits of these measures, however, to our eyes they do not yet add up to a coherent strategic and practical pathway towards genuinely sustainable cities. The problem we see, in essence, is that some of the main obstacles to sustainability result from the way whole urban conglomerates function as systems. It is these systemic characteristics that ultimately must be addressed. This begs the question, of course, of how to proceed when clearly wholesale change to whole cities is impossible.

We see the answer to those difficulties in two key methodologies. The first is that there needs to be agreement, as far as possible, about some working principles for sustainable city design based on designing out car dependence and designing in a range of triple bottom-line outcomes to have a coherent working model of sustainable urban form on multiple scales from individual dwellings and neighbourhoods to whole districts and regions. That basically is the substance of our written submission. We think the essential ideas and working examples of such models are already quite well known and are beginning to be tested in various places around the world.

The second methodology that we think is very important is that, rather than having aspirations for a wholesale change, it is in fact very important to proceed by creating concentrated pieces of best practice sustainable urban form. Working examples that integrate the full range of factors are what we are seeking to address. These examples ideally will be substantial in scale. They will draw on expertise from public, private and community sectors. They will be actively supported by government and we believe they need to be happening now. Despite all the talk, we think substantial high-quality, on-the-ground examples are still relatively rare. That is an opportunity to be grasped.

Why is this approach appropriate and important? We would suggest a number of reasons. It is an opportunity to experiment with and refine working models and trial various methods. It offers working examples to the wider community—educating, alleviating fears and changing market expectations. It can engage and involve members of the community who are already seeking to enact some change in their own lives. We think the numbers of those people will only be increasing. It can represent valuable intellectual property and attract interest, support and investment. It can drive the development of new industries and new employment opportunities. It offers hope and practical achievement to a society currently fearful of what the future holds for present and future generations.

Most importantly, this approach offers a way to create the systemic changes required in achievable steps, so it is covering both of those goals. It offers a process of change combining leadership with community engagement. We think a strong federal position would be of great benefit in leading the way.

**CHAIR**—Thank you for your submission. We appreciate the time that has gone into it. Obviously you guys have been working on these things for some time, so congratulations on that. One of the issues that arise out of your submission, which you touch on both in your argument that you put forward and in the approach, is that there is no big bang solution to this, so let us do what we can well. I want to sit that alongside advice and evidence we have received from around the country that scale matters for these things. If someone is going to subdivide a hectare, they can make certain gains—and that is great—but to bring about almost a recasting of what the urban form looks like, there is a certain size that is needed to support the infrastructure, the design, the engineering and the social interactions to achieve what you are aiming for.

In that light I am curious about your thoughts on urban containment boundaries. We were hopeful of meeting with the South Australian government this morning but they ended up withdrawing, so we cannot ask about that experience directly. I am interested in your thoughts about whether trying to contain the urban boundary might intuitively seem like a good idea but might actually make the kinds of things that you are advocating, with this meta change almost, more difficult. Do you have some thoughts on that?

**Mr Fisher**—As far as South Australia is concerned and Adelaide in particular, there are still very significant areas of open land within the urban boundary. We think they should be primary opportunities for new developments and new working examples to appear, particularly along major transport corridors such as the northern railway line.

**CHAIR**—As I understand it, some of that land holding is in smaller parcels. There is some task to aggregate the separate land holdings into something that is of a scale to bring that about.

Is that part of what you are seeing in the South Australian approach, where there is a government agency involved in brokering that? Are other organisations coming together saying, 'If 10 of you got together and with our expertise we could get better outcomes and you will be happy with the return you get as well'? Is that something that is happening?

**Mr Fisher**—My impression from the outside is that Planning SA certainly is starting to look at that sort of coherent, overall plan for where the city is going. There are some tensions, I think, with the Land Management Corporation, which controls a lot of that open space and basically sees its brief as maximising the return to government.

**CHAIR**—Are they like a property developer within the Land Management Corporation? Are they like the landlord, and they have a job of—

**Mr Fisher**—They basically sell the land over time, parcels of land to property developers, yes.

**CHAIR**—So they are like the government's real estate agent in-house.

**Mr Fisher**—Yes. But we would certainly agree strongly that the idea of scale more generally is very important and that there are some really significant economies of scale to be achieved in things like water, waste water capture and reuse on a larger scale and a suburban scale, say, for the sake of the argument. Things like new urban centres and so on obviously depend on having a population that is going to be the customer of those new small businesses, so it is very important.

In terms of the urban boundaries, I do not think it is black and white. I think it is a laudable aim to limit the spread of suburbia on current terms. I think it is very clear, from some studies, say, in Western Australia, that by and large people in the outer suburban areas have higher energy costs, when you add up all the transport and so on that they need to do what they have to do, than people closer in to the centre. But at the same time I guess—

**Mr McARTHUR**—How do you measure that energy cost to the outer suburban area? Is that a motor car use or—

**Mr Fisher**—I think it was total fossil fuel use based on the energy costs of running the home and transport costs, and essentially the overall pattern is that it increases the further out you get from the urban centre. That was a study done on Perth, but I am not really aware of the details. That was done through Peter Newman's work.

**CHAIR**—The point being, if we just look at dormitory development, that there is not a lot of argument, we have found, that says urban sprawl. Most people accept it is just dormitory activity. Sprawl that is homogenously dormitory creates a whole lot of problems.

**Mr Fisher**—Yes.

**CHAIR**—Something which has been put to us, though, is that a more rounded community that reflects other aspects of people's lives—it is legitimate to want to have a job, it is legitimate to have reasonable access to education, cultural and recreational opportunities—and the travel task is a by-product of putting those legitimate parts of people's lives further apart. If you had a

footprint of a city that may have been enlarged but that has those complementary activities—almost your romantic village idea—as a part of them, the sprawl starts to look a little bit different.

I guess that was the reason I was trying to draw out of you, in terms of where you put containment boundaries around sprawl, whether that is containment boundaries for housing and who is looking after, in a planning sense, land uses that deliver economic, cultural, social and personal feng shui enrichment opportunities? Where does that fit into a fairly simple thing? Are we just going to put a ring around housing and not tackle the tough stuff? You allude to workplaces and people wanting a job and not having to spend all day commuting to get to it, so how does that fit into what you see going on at a governance level—some of the ideas you are talking about? How do we bridge that?

**Mr Fisher**—I would say it becomes more appropriate—and we would agree with you and say that we do not see urban development per se as inevitably an environmental liability. Properly done, it can be an environmental benefit. Therefore, there is not really any inherent contradiction in urban development increasing across the landscape, provided it is properly done. Even increasing population to some extent may be possible. In that sense I think a containment boundary is perhaps more of a temporary tool that allows us to say, 'Let's stop just spreading hither and yon and have a look at what we are actually doing—have a look at how our cities are functioning now and what the opportunities are within the existing space', but not to say, 'Forever and a day so far and no further.'

**CHAIR**—So you have hit the pause button.

**Mr Fisher**—Yes.

**CHAIR**—What would you be doing, given the pause button is on; what are those other things? You have talked about spot E, concentration of best practice—and that is great—and operationalising the principles. What will you be doing? What behaviours would you change? What governing arrangements would you alter? What planning instruments would you be putting in place, given you have paused for what is going on now? What looks new? What is different, as a result of that taking a breath?

**Mr Fisher**—I think at the state government level what I would like to see is a specific agency whose job is to create high-quality working examples of ecological housing development—sustainable housing development or urban development generally—who have the resources to back that up, the access to the land required and some power to push the boundaries in terms of planning regulations and so on around things like water recycling plants and composting toilets, or whatever it is.

**CHAIR**—Yes.

**Mr Fisher**—To me there are plenty of ideas and there are plenty of good intentions, but the capacity we have to turn that into reality at the moment is just paralysed by—

**CHAIR**—We are finding this more and more. There is a truckload of ideas.

**Mr McARTHUR**—Paralysed by what?

**Mr Fisher**—Just that there are so many different hats in the ring and so many different players—so many different people with a vested interest just on the planning front alone, I think.

**Mr McARTHUR**—Can I just continue the line of questioning. Given you were talking about clustering and getting a higher residential population in a smaller area—as I read your submission—how do you really go against this fundamental trend of land developers opening up more and more new greenfield sites, particularly around Melbourne? We are seeing that opening up acres and acres of territory. As you say, you have this almost conventional wisdom position that any new housing estate will be a quarter-acre block type of development. How do you overcome that traditional approach to housing estate construction?

**Mr Fisher**—We say there are a couple of important strategies there. One is government leadership in creating examples of development which go against those trends very strongly and give people an opportunity to go and see something that is different, and recognise that it can provide a high quality of life.

**Mr McARTHUR**—Do you have a couple of examples that you can suggest we look at or the public look at?

**Mr Fisher**—The work that we are doing here on the Christie Walk project is a small example. We do not claim that it is the only model to follow by any means. There are some good things that have been done by the South Australian Housing Trust. There is the Aldinga ecovillage development.

**CHAIR**—Is it public housing or a mixture of housing?

**Mr Fisher**—The Aldinga development is private.

**Mr McARTHUR**—So you are really only saying, in answer to my question, that you have a couple of examples to support your thesis. We might have some sympathy with what you are saying but if you took a first home owner and said, 'You've got these options of buying a quarter-acre block out in the suburbs'—whatever that means—'relative to coming to a new high-density development,' and they were open-minded, how would you convince them if they were of your philosophy?

**Mr Fisher**—I do not think the examples we have at the moment are sufficient. We will need things that are built on a larger scale and seriously tackle the question of car dependence. Even the examples we have at the moment do not do that, by and large. They still very much have the 'road to every house and the double garage on the side' mentality, even if they have other environmental—

**Mr McARTHUR**—What would you do if you were the planning minister? Would you run the railway first, then build the high density and change the whole emphasis?

**Mr Fisher**—If I were the planning minister I would want to see government action on initiating projects in their own right. That might certainly involve private sector players. The

other arm of it, in response to your original question, is about the attitudes of local governments. They need to be much more proactive in saying to developers, 'Yes, you can develop in this area but you have to meet criteria 1 to 25, and unless you do that—no go.'

**Mr McARTHUR**—The local government are very keen to develop because they get more rates. They just see large areas of housing that bring in money. It is a pretty casual observation but I think they see it in about that light.

**Mr Fisher**—I just think they have to be convinced on the argument about the sustainability of their own communities.

**Mr McARTHUR**—How can you convince the newer councils that they should not develop a whole lot of housing estates to get more rate revenue?

**Mr Fisher**—It is not about convincing them not to develop. It is about saying, 'If you are going to develop more housing estates, then they need to meet a range of pretty stringent criteria. It is in your long-term interests that they do that because, if not, by the default position of letting an ordinary housing development go ahead, you are in effect creating a kind of environmental, and potentially social, liability for yourself for the next 25 to 50 years—for as long as that development exists.'

**CHAIR**—But I think Mr McArthur is making the point that everybody talks the talk. That is easy but actually getting people to change their behaviour is harder. It seems as though there is that intuitive thinking, 'Yes, of course sustainability is virtuous and we are all for it,' but actually capturing what those benefits look like so it hits them between the eyes that the downside of not doing it is this and the upside of doing it is that—there is an enlightened self-interest here. It seems as though there is a gap between the rhetoric and the reality.

**Mr McARTHUR**—Especially in Australia. There was a comment that a planner in Sydney had done some very good work in forcing the councils to get into the higher-density area and that there had been quite a shift. I read some article recently on that, whereas my casual observation would be that in Melbourne nobody has restrained the expansive 'out into the green territory and put up some more houses' kind of thinking. You only need to drive around the outer suburbs of Melbourne to see that there is no way anyone has had a change of mind-set. I do not know if my two colleagues would agree with that.

**CHAIR**—Absolutely.

**Mr JENKINS**—I have a slightly different view on some occasions. If you talk about the opening up of greenfield sites for residential housing based on rate revenue, there are some councils that see virtue in having employment generation concerns, whether they be industrial or commercial, as better prospects for rate generation. The outgoings are less. Some use that as a reason for doing the balanced development. They would not argue that in public but they actually see that there is the potential to do that. It is very interesting that some municipalities try to have that ratio for job opportunities to residential places.

**Mr McARTHUR**—Without the travel factor that you talk about—you talk about that in your submission; that you get the jobs and the houses in the same location.

**Mr Fisher**—Yes, that is right; not necessarily in an absolute sense but by and a large the goal is to strengthen the amount of activity going on in local economies.

**CHAIR**—More rounded lives.

**Mr McARTHUR**—Could I just pursue this other point in the submission of the 24-hour centre argument. You were pushing the concept that the central business district of Melbourne has run the argument that you need more people there from 10 o'clock at night until six o'clock in the morning to make it a liveable community. Are you saying that you would like to extend that to the urban setting as well?

**Mr Robertson**—You can see examples in Adelaide of the opposite of that—for example, at Elizabeth or Noarlunga Centre or Tea Tree Gully. You get off the train or the bus there and it is as if the houses have been put under a court order to stay 500 kilometres away. Most of what you see are car parks or perhaps the back of a shopping centre. It is a pretty bleak place. If you think of what is the opposite of that, it is lots of people living right next to the bus stop or around the station, with small parks and workplaces and shops and so on.

**Mr McARTHUR**—Can you give us a couple of practical examples, rather than the theory. What are you actually going to do out in some of these newer suburbs? What is the real plan and the real activity that you bring about—this 24-hour activity?

**Mr Robertson**—Well, 24-hour activity means shops or entertainment venues that are open 24 hours, as well as people living there. You can have a passive 24-hour activity because people are sleeping next to the public space. If anything bad is happening they can wake up.

**Mr McARTHUR**—Some of these urban people are a bit upset about hotels and gaming venues being open until five o'clock in the morning. They have a social concern about that.

**Mr Robertson**—Yes. You have to design into it community friendly features and not have cars driving around. You need to somehow smother the noise so people can come out drunk and yelling and not wake up everyone else. Of course you can always have hotels where you can play loud music and no-one else hears it. I think they are having to build protective barriers around hotels in Adelaide because a whole bunch of apartment blocks have been built next door and the tenants are starting to complain.

**CHAIR**—Conviviality is very hard to construct, though. My suggestion is that it is more organic and somehow, as Mr McArthur is alluding to, you need humans who want to be there. Something has to get them there and it is pretty hard to whip that up in Tea Tree Gully where you have a throbbing restaurant precinct or a leisure precinct. Folks in Rundle Street would probably say, 'Hang on, that should be in here.' Do you know what I mean? This is something we coming across. Everyone can talk about what it is they would like but to actually bring it about in a proactive way requires some magic. We are hearing all kinds of ways that could happen but we do not quite have the magic yet.

**Mr Robertson**—One way to bring it about is having opportunities—let us say shopfronts or venues—and you invite people in to do experimental stuff. You say, 'We're going to be really tolerant of what you want to do here. You don't have to be an established type of hotel or other

venue. We're going to give you cheap rent.' Invite artists or community groups in and just experiment. There will be a lot of failures. There will be a lot of things that no-one turns up for but other things might turn up and suddenly, 'Oh, that's a great idea.'

**CHAIR**—Let us talk about the MFP. In terms of a working example, from the outside looking in, you would think that was aspiring to do some of the things we are talking about. Maybe they got it wrong, but I would be interested: if MFP2 came about, what would be different? What would we embrace to emphasise the kinds of goals we are trying to deliver here?

**Mr Fisher**—I do think there is another compelling reason for the sort of step by step approach and for creating cutting edge developments on a substantial scale but still piece by piece, because it can engage people—that proportion of the population who are ready and willing to do that sort of thing. There is talk that about 25 per cent of people are looking to down-scale their lives: they are too busy, life is too complex, too difficult—whatever.

**Mr McARTHUR**—Do you have a location in Adelaide where you would actually do some of this stuff? We have been to Redfern in Sydney where we have seen a bit of this whole argument being implemented. Do you have a spot here in the Adelaide suburbs where you would have a bit of a go at this?

**Mr Fisher**—Absolutely. In terms of the kinds of urban centres that Michael is talking about, the principal opportunity here is new development around some of the rail corridors. There are certainly plenty of opportunities along the northern rail line and indeed the southern one as well to be doing those sorts of example developments.

**CHAIR**—So you would go out to do it? In relation to the Green Square example in Sydney, they have said, 'No, we're going to come in.' They have gone in to South Sydney and they said, 'To get all this happening you need the vibe and the folks and the pull of the convenience of the city,' so they are having a go at coming in and trying to get it that way. You seem to be talking about reaching out a bit and saying, 'Well, the next bit of sprawl'—I am not saying you want to do a sprawl—'is where we might do it better.'

**Mr Fisher**—I think there are two key locations, using Adelaide as an example. There are some inner urban areas where there has been industrial development or rail yards or whatever that are now disused and the land needs to be remediated anyway. You can get that benefit of being close to the city and people sense it is a bit of a dynamic place to be. I am not talking about right out on the edge somewhere, but rather the medium distance. There are certain opportunities here where you can do that stuff, specifically around the key transport point—and access to that point—as being the focus around which you develop. You make that explicit, whereas of course the standard practice today is to try and avoid the railway lines or pretend they are not there or build a huge fence along them or to just put railway stops out in the middle of nowhere, surrounded by car parks.

**Mr JENKINS**—You have given a very good proposition about the concentrated examples, but by nature they are going to be a form of infill, because we are doing it around existing infrastructure. Most importantly you have highlighted public transport, but I should imagine that in the total a lot of other infrastructure—water, electricity, things like that—also can more easily be tapped in. I understand how admirable it is to aspire to these examples, and we have probably

seen some of the rare examples that you talk about, in a different form—Kelvin Grove in Brisbane.

Funnily enough, in my electorate, at a site that is about 20 kilometres from the GPO but ends up being as much an infill site as anywhere else, very much a mixed use development is proposed. Hopefully it gets off the ground, because it will require the change in mind-set that we are discussing. These are not just planning matters; these are really lifestyle choices and things like that.

Whilst it appears to be more easily understandable in Melbourne at the Docklands development, I am not sure when we get out to my patch that it is as clear. But certainly this development looks at a retail facility that hangs off the residential but is associated with some form of industrial manufacturing. Importantly, it tries to get office space into the outer urban areas, so it is really just a continuum. Having said that, I would like then to see—five to eight kilometres out further in an area that I also represent on the urban fringe—that the newer developments have those elements. It is just not clear that that is going to happen, even on the basis of the great examples, as you put it.

**Mr Fisher**—There is good reason also to look at existing country centres as well as being opportunities in their own right. In the very long term we would like not only to see existing cities become in a sense a cluster of smaller cities, with green space in between, but also to see a better spread of population across the landscape as a whole. Country centres would then become more significant in terms of not having so much of the economy and everything else vested in one major urban conglomerate.

**Mr JENKINS**—Mr McArthur represents an area that we probably should be looking at on the Surf Coast. For lifestyle reasons a whole host of people are going down there, but they commute daily up to either Geelong or Melbourne to their jobs. The couple of buses a day that go down there are hardly, in any form, sufficient public transport to hang off that. The proposition about those provincial—in inverted commas—centres is interesting—whether we have really looked at the way that they can be integrated.

**CHAIR**—I wonder, and I am interested in your response, whether we have somehow confused the whole language and the metrics of quality of life. I do not know anybody who likes spending three hours a day commuting. That is suburban toil at its worst, yet a large proportion of my community does that. Is it important for us to go back and say, 'Hang on, that's a huge cost. In the balance sheet of your life, that's maybe not such a wise way to go,' and start having a bit more of an enlightened conversation about what sustainability actually means in terms of better living standards.

The McMansions, the Tuscan McMansions, are popping up all around the country. We were in Brisbane. They are going to suck up more energy than you could ever imagine to have comfortable climates, yet you talk to people about a more ecologically thoughtful house and they think you have to eat hydroponic buck choy. It is one extreme or the other. Really we are saying, 'This is about comfort,' and there are some design issues et cetera that can be brought in. I wonder whether the literacy around this is underdeveloped and whether a useful thing that the Commonwealth could do, in cooperation with other jurisdictions and stakeholders, would be to

build up an understanding that a cheap house to construct costs a stack more to run and those kinds of things.

**Mr Robertson**—You need a display village for ecologically sustainable houses or apartments, let us say, where people can walk in and say, 'This is good. We'll have one of these. Can you build it over here?'

**CHAIR**—'This isn't from another planet.' There is one high-rise on the Gold Coast that is being built without airconditioning. We went to an Inkerman development where the federal government put in a lot of money to provide more ecologically thoughtful high-density public housing/private housing, which did not need airconditioning because it was designed that way. A few of us ducked around the corner from where the presentation was and every one of them had airconditioning. Even though they had been designed not to require it, people thought, 'Oh, better have airconditioning.'

It seems that we do not have the conversation quite to the point where it affects people enough to have them change their behaviour—whether that is selling the ideas—and we do not have a buy-in from some of the thinking from a lot of our community.

**Mr Fisher**—From our point of view we would very much like to get past a lot of the New-Age kind of sense of building community as if it is something terribly introverted and closeted and you have to be in each other's pockets day and night, or about lifestyle—that it is all about feng shui and all these kinds of, in my view, somewhat airy-fairy concepts. I think we need to get much more nitty-gritty about the social dimension and social sustainability, and what people are actually experiencing. To me just one aspect of what we are seeing is people increasingly under a background level of stress that is much more persistent throughout their day and throughout their lives because they are having to work longer hours, travel further, keep up with the multiple demands of their lives and so on.

One of the responses to that is to say, 'I want my private domain to be such that I can shut the rest of the world out. I want more space inside my fence and I don't want to think about what's going on out there.' It is a real bind, but there is a shift in thinking taking place. There are lots of people who are starting to recognise that this is not just about being a New-Age contemporary hippy; it is about the balance of your life. We can get much more specific about people's needs and, to a certain extent, it is about saying that, at the deep and meaningful level, we need to stop thinking that society is rushing off, progressing to somewhere else. We are here, we need to live and exist where we are and stop focusing on quantitative growth as being the primary thing by which we measure our success, and focus on the qualitative improvements in our lives.

**Mr Robertson**—In the case of Queensland, I have visited those lovely wooden houses where half the house is a veranda on the first floor and the wind just goes underneath—that is where the junk piles up. But these are places where you can have a comfortable lifestyle in the open air. Is there a tendency for those to be glassed in and airconditioners installed or are people generally happy with their arrangements?

**CHAIR**—I have a cartoon, which I did not bring with me, showing the traditional Queenslander and then the Tuscan McMansions, making the point about 'Progress?' That is one of the issues, though—letting people live a little. I think that is the strongest argument about

your demonstration examples, where it will allow people to live a little and come to the conclusion themselves on their own terms. No amount of government rhetoric about how virtuous something else might be is going to trump someone seeing at first-hand, living it, breathing it, experiencing a better outcome—thinking, 'Yes, I wouldn't mind a piece of that.' It seems that is where we are running into some problems, because there are not too many examples around the place that people can get a taste of. Any closing thoughts for us?

**Mr Fisher**—It is easy to say but to me the core point of our argument—about developing these working examples—is that it does require strong government leadership. We think there is every reason to do that, providing it is a partnership between government, the private sector and the community sector, and that all those players have a role. It is well past the time where government can afford to sit back and say, 'Well, somehow we're going to get the results we want.' This will be done only by pulling the levers in terms of what private industry is up to, and there is a real role here for government leadership.

**CHAIR**—To get some runs on the board.

**Mr Fisher**—Demonstrating something that is genuinely different.

**CHAIR**—Thank you for your time and thank you for your submissions. We have had 200 submissions and everybody is busting to say something about this topic, which is great. We have a lot of thought bubbles coming out, trying to pull it together and operationalise it a bit. That is our challenge, I guess. Thank you for your insight today.

**Mr Robertson**—I have been reading the submissions intently and getting lots of ideas.

**CHAIR**—Yes, they are a good read. The health community are very excited, arguing that clinical primary health has had its day. Preventative health is very much understood and has been around for a while. They point to the environmental health opportunities—that is, unsustainable communities create sick communities and sick communities have costs—and are saying, 'Be mindful of the price of not doing this better.' I guess that is one of the reasons why we have these inquiries. The Commonwealth tends to pick up the costs of these things being done poorly but does not have many of the levers that are needed to get them right in the first place.

**Mr Robertson**—And calculate the health costs of people.

**CHAIR**—That is right.

**Mr Robertson**—It is a major physical exercise because you have to drive everything.

**CHAIR**—The time we set aside for the South Australian government we ended up having as free time and we were talking amongst ourselves about little boxes called houses being plonked in the middle of nowhere, with no social engagement and complete disconnection from employment, cultural and leisure opportunities. It might be a cheap house and the land package of today but they are likely to be the points of social tension tomorrow. We might be creating our problems today by not getting involved. That is one of the reasons why we have this reference.

**Mr Fisher**—I think it is terrific.

**CHAIR**—It is fascinating.

**Mr Fisher**—It is indicative of the importance of the subject, if you like, that so many people can be converging on the same kinds of issues and conclusions from so many different points of view.

**CHAIR**—There is a wellspring of ideas there that erupted when we put the inquiry out. Everyone is saying, 'Here's our chance.' We have had community gardens people all the way through to the food supply people, who say that the fact that most of our food comes from somewhere else disconnects us from that and that it should be a requirement within certain conurbations of urban settlement to create your own food. It has been quite interesting.

**Mr JENKINS**—Matt, what was your background before you came to your organisation?

**Mr Fisher**—I have a background in terms of environmental activism that led me to Urban Ecology as one organisation which just talks about positive solutions rather than problems. I also work in the community housing sector, which has a bit of a history of innovation in some of these areas. My real passion is philosophy. I have just completed a thesis on creativity in the nature of mind. There was quite a bit in that for social sustainability thinking as well, I would hope, somewhere down the track.

**CHAIR**—Who was that planner from the Sunshine Coast in Queensland we spoke with? One of the submissions was almost spiritual. It was fascinating. I am trying to remember his name.

**Mr JENKINS**—Yes, from Nambour, the hinterland.

**CHAIR**—From Nambour, yes. The reason I ask is that I think one of the approaches that is required in this area is this holistic approach where we have people coming from a great range of skill sets to try to tackle some of the issues. In fact, we have been chastised for referring to the triple bottom line, and that is not really what it is about. It is actually four legs of a stool, where the fourth one is governance. It was an impressive argument, I found; a quite compelling argument that you need excellent governance to bring the best out. It was James Lillis's submission. Have a read of that.

**Mr Fisher**—All right.

**CHAIR**—If you want a philosophical interplay with sustainability, you will love it. But the governance thing was that to get better sustainability outcomes you need the best out of everybody. Some of our institutional arrangements are unhelpful and very silo like when interconnects are what matter. In fact we heard from an ANU professor that the best work they did was at Port Macquarie, where they were redeveloping their planning scheme and everyone went feral. They could not get anyone to agree on anything. You had the white shoe brigade wanting to subdivide and you had the buck choy crowd saying anybody who is not wearing hemp clothing is evil. It all went terribly sour. So they brought in—I do not know what you would call her; perhaps a social engineer—a facilitator who sat everybody around the table and together they nurtured a community plan which then informed some economic and social strategies supported by a land use plan. So rather than start with the town planners having control they said, 'No, hang on, land use planning is a tool to achieve something else. Let's talk

about those something else issues'. They were very committed to the process of nurturing better outcomes.

The Western Sydney folks said the same thing. They said in Western Sydney, 'It is going berserk, but we need some kids to work; we have to get rid of our waste. There was a regional-municipal coming together that produced a better outcome. That was part of that whole governance thing: how do you get those interactions functioning? Her line was, 'We've got a battle of the experts, but regular people's input is as valuable because it is their space. They live there. The town planner leaves; the transport engineer leaves. It is actually someone's home and therefore they are crucial stakeholders and their voice should be as valid and as relevant as somebody who has academic qualifications or bureaucratic credentials.'

**Mr Fisher**—Yes, it would be wonderful to think that we could embed that understanding in what we are about, rather than, in a sense, having to rediscover again and again how important that is.

**CHAIR**—Federally, it was put to us that we have funded, municipal recreation officers and youth officers and that that be a top-up resource to local government. They are saying: 'If it is the horsepower and the talent that is not there, maybe you should focus on that. Give communities the tools to find a sustainable pathway for their community that everyone owns, rather than have 12 people object to a planning scheme amendment until someone actually wants to do something about that amendment and then all hell breaks loose.' The planners say, 'You should have been here two years ago when we were doing our planning scheme' and the person says: 'Hang on, that was over there. It didn't matter to me then. If someone wants to build an eight-storey condo next door to me, now it matters.' That was really quite fascinating.

**Mr Robertson**—We really need a vision for what we could do.

**CHAIR**—And that is what brought people together. That is what you are saying—there is some shared purpose that was nurtured through that process, where all of those stakeholders and some with competing interests agreed where they disagreed, but also recognised where they agreed and said, 'Around this shared purpose we can all put our shoulder to the wheel.' How they came up with high-density outcomes around the cafe district—deliver what you are saying—is that they recognised they needed some light industrial because not everybody is a home based telecommuter. They said, 'The tourists are okay, but let us manage the impact and we do not want the joint run by rubbernecks,' or whatever.

**Mr Robertson**—Is that process achieving—

**CHAIR**—Yes, it was characterised to us as doing so and, more particularly, it was a great circuit-breaker when the traditional tools just were not working—nothing was happening.

**Mr Robertson**—As long as it does not just get rolled in the end by some developer wanting to do—

**CHAIR**—Yes. That was the deal, because they basically said, 'We are all on this and if someone wants to come in and dramatically move away from our shared vision, we are

expecting everybody to make it known that we kind of had something else in mind.' That was interesting. Thank you.

[11.25 a.m.]

**WORTH, Dr David John, Convenor, Sustainable Transport Coalition (Western Australia)**

**CHAIR**—I welcome our traveller from Western Australia. Thank you for coming. We are grateful you have made the time. 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 you that the giving of false or misleading information is a serious matter and may be regarded as a contempt of parliament. On that bright and cheery note, would you like to make some introductory comments?

**Dr Worth**—Yes, thank you, Chair, and committee members. I have provided some additional documents which I want to table. I had a look through the transcripts of your previous meetings with community members and so on and it seemed that a lot of the submissions have covered material that I suppose has been covered in the last 25 years, when we have been talking about planning and transport issues in cities and so on. I thought I would provide some more up-to-date material on one part of the submission we made, which is the issue of oil vulnerability or depletion.

The materials consist of a new policy which in fact we are having launched this evening in Perth by Dr Carmen Lawrence, who is the national ALP president. The reason we have invited Dr Lawrence to launch this is because we think this is a national issue. While our coalition has been running quite strongly on it at a state level, we believe that it is going to impact at the federal level as well. We have made similar sorts of recommendations in this policy to what we made in our submission.

The second document is from a group of analysts who have analysed the 10 major oil producers—this is the Wood McKenzie document. There are two points I wanted to particularly make in regard to oil depletion and the first is on the front page where it is saying that in the recent period new oil discoveries are only replacing about 40 per cent of what the world is using each year, so basically we are running down our oil stocks; we are not replacing what we are using.

The second page at the top has an interesting document that shows that the 10 major oil companies have spent approximately $US8 billion to $US10 billion on oil exploration in nearly the last decade. In the last couple of years the value of the oil that they have found has been less than what they have spent in finding it. This is another indication that we are facing a new period in terms of not running out of oil but running out of cheap oil.

The third document is from an investment banker, Michael Simmonds, who is a good friend of the US President. He is a Texan. He has a very good web site with a lot of information about the global oil industry. I have just picked up one of his PowerPoint slides. One of the reasons we believe there will be an issue in regard to rising petrol prices in Australia in the near term is the impact that China's growth is having on demand for oil. They were an oil exporter up until about

two years ago. They are now an oil importer and their usage of oil has doubled in the last decade. That is really driving the demand side of the oil equation.

**Mr McARTHUR**—How does that statistic of two barrels per person relate to Western averages?

**Dr Worth**—I do not know.

**Mr McARTHUR**—I imagine you put it there for a reason.

**Dr Worth**—I was more interested in the graph and the slides. As far as I am aware, car ownership in China is going up by 50 per cent per annum, so it is not an issue that will disappear. The third document is from Pierre-Rene Bauquis, who worked for the French oil group, Total Finale, for more than 30 years. He visited Perth recently to talk to the oil industry. I have picked out an interesting chart that he has prepared. This is a document that was published in the *Oil and Gas Journal* earlier this year. What it is showing is that over the last 40 years, since 1960, there have been about 40 studies looking at the likely global oil reserves. They have all come up with similar figures of around 2,000 billion barrels. Even though we have had 40 years of new exploration and new studies, there is not much more oil there to be found. What we are finding are very small reserves.

In the last six months the Sustainable Transport Coalition has been involved in a state committee called the Transport Energy Strategy Committee, which the state Minister for Planning and Infrastructure set up. Their view is very benign, and that is that if we run out of cheap oil we will move to gas; and when we run out of gas we will move to hydrogen. What this document shows is that with the Australian car fleet it took 17 years basically to move it from running on leaded petrol to unleaded petrol. It is not an easy factor to move that fleet over, to move to gas powered cars and buses. The federal statistics from the bureau of transport research show that 50 per cent of new cars bought today will still be on the road in 20 years time.

It is going to be very hard in terms of cities right around Australia, whether an urban city or a regional rural city. We basically run on cheap oil. Our whole system is run on cheap oil, so our coalition is very concerned about this as a state and federal issue. That is why we were quite keen to talk to you today.

**Mr McARTHUR**—Dr Worth, who is part of the coalition?

**Dr Worth**—It is made up of members. Members are organisations like local government bodies or councils. Members are environment groups like the Conversation Council of Western Australia. Members are also people from the transport industry, like bus companies and so on. We have about 30 members and we have about 60 supporters, who are individuals and organisations who do not want to be seen as members but are willing to support us. Then we have over 160 people who have subscribed to our e-newsletter, which comes out every two weeks.

**CHAIR**—Are you employed by the coalition?

**Dr Worth**—No. I am a volunteer convenor. My full-time job is in the Web industry and I do some lecturing at universities. We do have a part-time staff member who helps put together documents like our submission.

**CHAIR**—Thank you for the time that went into the submission and for your comments this morning. In your submission you focus on something that we are very interested in—that is, nurturing, encouraging and bringing about behavioural change, particularly as it relates to car dependency and fuel consumption patterns. You mentioned some of the AGO programs and the smart travel programs and those kinds of things. The cut-through on those is not to be sneezed at but of itself clearly is not going to make the kinds of shifts we would like to see. Could you just talk a bit more about behavioural encouragement.

**Dr Worth**—Certainly. The program that we have been supporting in fact was a government program set up by the previous Liberal state government. It is called TravelSmart. Basically, it is a personalised marketing system. They take a local government area—the first one was South Perth—and basically everybody is rung. There is a conversation about what they presently use for transport: how they get to work, how they get to the shops and so on. If they are interested, and usually about 40 per cent of people are interested in receiving further information, they are then sent information. That might be about cycling or it might be about bus routes. The bus company will prepare an individual map showing your route and how to get from your home to work, or your home to the local shopping centre. They mail that out to people. The new Labor government, the Gallup government, was going to disband that program. We have fought quite hard to keep it in place because it has been quite successful. I think the shifts in journeys in South Perth was something like 17 per cent away from cars onto foot, onto buses, onto cycles.

**CHAIR**—So you just accept your travel task as being a given and then look at how it can be met without the use of a private motor vehicle.

**Dr Worth**—That is right, although part of it is getting people to think about why they use cars or where they go and how many times they go to the shopping centre and so on.

**Mr McARTHUR**—Was that 17 per cent in the city CBD to place of residence?

**Dr Worth**—No. That was 17 per cent of total travel out of cars and onto some other form of transport. It has now been rolled out into other areas of Perth. They have done about 10 per cent of Perth now. The rate varies. Around Fremantle it was about 14 per cent. Further out from the city it might only be eight or nine per cent. It is also a program that is now being picked up. The company that has won the contract to do it is a German based company called Socialdata. They are now rolling this out in America and Europe but it is something that was started in Australia. We feel it is very worthy of federal funding to be rolled out in other locations in Australia.

**Mr McARTHUR**—Could you just give us an individual example of what is happening in the suburbs? To change the program for this 10 per cent, what did they do?

**Dr Worth**—Instead of driving the car to work five days a week, they might take it four days and take the bus the other day. In fact, they were able to capture the bus data very clearly because people use the cards that they log into the machines. They can capture the changes in

usage very easily. Cycling is a bit more difficult. Basically they go back to people after six months and in the main the changes remain in place.

**Mr McARTHUR**—On what grounds? When you have taken the bus and the train, why do you still do it?

**Dr Worth**—Because they find that maybe it is not as insecure taking the train as it is made out to be in the media. It is actually a very good service.

**Mr McARTHUR**—So the experience is a positive one and they stick at it.

**Dr Worth**—That is right. One of the things they will do, if you say you cannot use your bike because it is broken or the tyre is punctured, is send somebody out to fix it. Then they will ring you back and say, 'How's it going?' and I think that experience of taking the bike and getting that sort of personalised service is a bit like how people sell other products. It is very personal and customised.

**Mr McARTHUR**—The bike-rider guy takes the bike from his house to the railway station?

**Dr Worth**—Yes, or rides to work or down to the shopping centre. I have not been involved with this but I have decided to take the bus once a week to work. It is a 20 per cent saving in petrol.

**Mr McARTHUR**—Why not five times?

**Dr Worth**—Because I need my car to get around. I do selling in the Web area, so I need to go to client visits—and probably because I am lazy, like a lot of people.

**CHAIR**—The day that you have committed to the bus you know you are office bound; you focus on projects or if people want to see you, they come to you. It is part of your routine now, is it?

**Dr Worth**—It is. My experience is probably quite illustrative in a sense. I have a bus route that gets me into the city quicker than the car, it is cheaper, and it is a two-minute walk from my house. I never knew it was there until I went looking. This is probably the same in many cities in Australia. The public transport system is probably very useful but people are just not aware of how useful and beneficial it is.

**Mr McARTHUR**—How do you know the bus trip was cheaper than the motor car? How did you make that judgment?

**Dr Worth**—If you include all the annual costs, running costs, insurances, how often I replace my tyres, how often I get it repaired, I am sure that—

**Mr McARTHUR**—Did you do the envelope calculation? How do you know that is right? Or did you read the RACV calculation?

**Dr Worth**—No, I do my own calculations.

**Mr McARTHUR**—So what is the relativity?

**Dr Worth**—It is at least half the cost of taking the car—at least half. Of course, I cannot include externalities of pollution from buses and what that might do to people but on a basic price it has saved me a lot of money.

**Mr McARTHUR**—Did you do it in after-tax dollars as well?

**Dr Worth**—No.

**CHAIR**—He has fiscal challenges like I have.

**Mr McARTHUR**—That is quite a serious point, isn't it? You have to run the motor car on after-tax dollars, unless you have an FBT, and if you run your public transport, that does change the equation.

**Dr Worth**—I have done it on hip-pocket dollars. I would take my car and it would cost me $700 to get repaired every four months. How much does it cost to get a ticket that gives me 10 rides for whatever? So it is only a very basic calculation, but for me it is worth it. Certainly they have found that with TravelSmart it has been very useful. In fact, one of the things we try to do is go and do presentations with the government bureaucrats about how useful it is, because people just do not believe you.

**Mr McARTHUR**—You think with this TravelSmart program, by changing the attitude of a few community leaders, even normal citizens, then they will talk to their friends and then you will get an increase?

**Dr Worth**—That is right.

**Mr McARTHUR**—Because it becomes demonstrated that public transport is both economic and it can be done. They are the key things. Is that right?

**Dr Worth**—That is right, and that is based on petrol at $1 a litre. We are talking about petrol maybe going to $3 a litre in five years. By then public transport has a far greater value to people. Already in Europe they are paying $1.80 to $2 a litre for unleaded petrol. So we believe that with the global situation—and we have a conference coming up in August where somebody is delivering a paper on this—in 10 years petrol will be $10 a litre. So if you are away from public transport and you are spending 15 per cent of your annual budget on taking your car to work and fixing it and paying insurance, jumping from $1 to $10 a litre is going to affect a lot of people on the fringes of our big cities in major ways.

**Mr McARTHUR**—What will they do?

**Dr Worth**—They will probably try and sell their house in a downward market and probably end up with negative equity. There will be major social implications of what is happening in terms of the world market.

**Mr McARTHUR**—What if they are not on a major public transport route, though?

**Dr Worth**—They will be stuffed, really. They will have to find a job closer to home, which will be hard. They will try and sell their house to go into town, maybe, or into an apartment closer to the city. That is why we believe the federal government should be doing something now to investigate this issue and start forward planning. There are arguments about this. Some people say it will happen in 30 years. Some say it will happen in 10. It is the same with me. I know I am going to die. I do not know whether it is going to be in 50 years or tomorrow, but I put in place life insurance and salary protection and write a will. We believe at the moment governments are not doing any of those basic things.

**Mr McARTHUR**—So what are you suggesting?

**Dr Worth**—We are suggesting, firstly, an inquiry. Secondly, we believe that the government should go back to increasing on a regular basis the price of petrol, so that it takes it towards the European prices. We believe that will cut people's usage, in particular of their cars.

**Mr McARTHUR**—How are you suggesting the government increase the price? Put more tax on it?

**Dr Worth**—Yes. Another excise, whatever, and that money goes into a fund that helps cities plan over 20 or 30 years about what happens.

**Mr McARTHUR**—The current government had a lot of problems once petrol went over $1. They ran into major political difficulties.

**Dr Worth**—Yes, they did, but it was under the Fraser government that the excise was put in place and we went to world-parity prices, because we had an oil crisis in 1974-75. We are going to face the same. If you go to this Simmonds guy, whose overhead about China I gave you, he is saying at the moment that the distribution channels between digging oil out of the ground and putting it in your car are running at 100 per cent. It only needs one minor fire in a petroleum storage are somewhere, a supertanker to go down, and we are in trouble.

If you look at Australia, our strategic reserves of petrol are at their lowest levels in 20 or 30 years. Go down to my local petrol station and you will find that they hold two days supply of petrol. It is all just-in-time delivery. I go to my supermarket. There are two days supplies at Woolworths and Coles. If there is a problem in us getting oil to run our cities and our lifestyle, it is going to be a major event for state and federal governments. At the moment it is not on their horizon. We are trying to put it on their radar, saying, 'This is an issue.'

**Mr McARTHUR**—Can we just pursue your argument here that there was a presumption that—just quoting you—'postwar suburban development assumed car travel'.

**Dr Worth**—Yes.

**Mr McARTHUR**—I am not challenging you on that, but what would you do to overcome that assumption? How would you stop the planners, the property developers, municipalities, everyone in the game? How would you take away that fundamental assumption?

**Dr Worth**—I think there is no one solution. You need to work at all levels: local government, state government, federal government. We are suggesting the FBT regime is not a good one. The more you use your car, company car, the cheaper it is. This just beggars the way that we, say, charge for water. In WA now, we have a water problem. The more water you use, the more you pay. We believe it should be the same with your car.

**Mr McARTHUR**—The more you use it, the more you pay?

**Dr Worth**—Yes. The higher the cost per kilolitre of water.

**Mr McARTHUR**—Okay, but in a car? Why are you saying that, because in fact at the moment the more you use it, actually it defrays the overhead costs.

**Dr Worth**—It does, but it also costs the government more in terms of FBT. It is cheaper for the individual. Say if I bought my car, paid the rego, third party and whatever, and locked it up for a year and did not use it, I am paying the same cost as somebody who drives it for 150,000 kilometres. That is mad. They are creating health problems, environmental problems, whatever, using oil and then paying the same as me, who does not use the car. We believe it should be more on a user pays principle.

**CHAIR**—This is your road-user charge?

**Dr Worth**—User charge, yes.

**CHAIR**—You are imagining that would bring in other kinds of taxes and charges?

**Mr McARTHUR**—Excuse me, can we get—user paid by the motor car driver?

**Dr Worth**—Yes.

**Mr McARTHUR**—So you would want a clear comparison between an FBT sponsored motor car compared to a public transport user.

**Dr Worth**—Yes. In fact, we believe the FBT should be done away with for cars. We have the strange situation in Perth where a senior public servant has to take a car as part of their contract. They cannot say, 'No, I want a bicycle,' or, 'I want $5,000 for using the train or the bus.' They have to take a car. It is mad.

**Mr McARTHUR**—But in this TravelSmart discussion with your friends in Western Australia, do they have much trouble convincing people that a motor car is fairly costly to run?

**Dr Worth**—Convincing people that they ring up and talk to?

**Mr McARTHUR**—Most people sort of think a motor car is really a case of putting the fuel in from the bowser and that is about it—how much it costs in the hand. It is very hard to convince people it is about 50 cents a kilometre.

**Dr Worth**—I think you are right. People do not have an overall view of the total cost, the annual cost, of running a car.

**Mr McARTHUR**—How did they win that argument in the discussion?

**Dr Worth**—I think they win it by the useability and also environmental consciousness. If you look back over the last 30 years, Australians are far more environmentally aware. So if you ring up somebody and say, 'Well, cars are great to use but what are they doing to our environment, what are they doing to our health?' that is an important factor.

**CHAIR**—I think Stewart is making the point too that in our research, in evidence put to us, that consciousness is there but the actual behaviour is harder. Some 75-odd per cent expressed environmental consciousness and I think it was seven or eight per cent have that effect their point-of-sale decision making, if I could put it that way. Stewart is asking: how do you bridge that claimed consciousness with behaviour that looks a little bit different?

**Dr Worth**—You have to provide the most cost-effective solution. Another example from Perth is the northern suburbs railway. That has been so popular they are now having to double the size of trains, enlarge the rail stations, put on more services, because people have now seen the great benefit of driving a car to a railway station and getting the train into the city.

**Mr McARTHUR**—Surely that is a wonderful example. We have heard that quoted on a number of occasions. Surely if you can demonstrate that viability and success, that would encourage planners to do it in other places. There is a similar one on the Gold Coast where the fast train is working well. What do you think are the distinguishing features of that success? Is it the speed of the train? Is it the access? Is it new? Is it a good track? Or is it just that people have seen the big benefit of getting from an outer urban area to the CBD?

**Dr Worth**—I think it is all of that plus that this particular train line goes right down the freeway, so you are whizzing by while everyone is stuck in a car not moving. I think that is a great psychological—

**CHAIR**—So the optics are good?

**Dr Worth**—The vision?

**CHAIR**—Yes, as in what people see.

**Dr Worth**—That is right, but also it is a very good service. It is cheap. The parking is there. You can park and ride and it takes you into the middle of the city. It is what Sydney and Melbourne have had for decades. Perth has never had it because we have been so car based in our planning.

**Mr McARTHUR**—What about the car parking near the station? How close can an individual get? Do they have the drop-off type arrangement?

**Dr Worth**—They have those, as well as very good car parks within 50 to 100 metres. In fact, I am near one at another freeway, the Kwinana Freeway, where they had to expand the car park

last year and they are having to do it again. There are so many people who want to use that service.

**Mr McARTHUR**—Do they have an undercover car park?

**Dr Worth**—No.

**Mr McARTHUR**—What about the limited amount of land near the railway station?

**Dr Worth**—Perth probably has fewer of those problems than other cities. At the moment they are mainly single storey; in fact, they are so close to the railway station that at the moment they are having to consider security issues regarding terrorist attacks. They are moving bike lockers off the station because they are worried about people obviously putting in other things.

**Mr McARTHUR**—I would like to raise a subject from left field. You talk about the Chinese graph here. If you implemented your theories in China, wouldn't you leave them all on a motorbike rather than buying a motor car, given the oil demand?

**Dr Worth**—I went to China many years ago. They really loved their bicycles at that stage but they have fallen in love with cars. I think their cars are smaller and more fuel efficient. It is a big problem, not only in terms of oil but in terms of greenhouse.

**Mr McARTHUR**—And an ability to get them on the road.

**Dr Worth**—Yes.

**Mr McARTHUR**—If your theories are right in Australia, they will be doubly right in China.

**Dr Worth**—Yes. They have quite good mass transit systems, especially in cities like Beijing—an underground railway.

**Mr JENKINS**—What could we have done better with the northern railway in Perth?

**Dr Worth**—You could have put it in sooner. That is part of the debate at the moment over the southern railway to Rockingham and Mandurah. I think they have done it pretty well, though.

**Mr JENKINS**—The freeway reserve was always there, was it?

**Dr Worth**—Yes. There is a reserve further north as well. The railway is being extended to past Joondalup.

**Mr JENKINS**—What about developments around the stations that extend them to be more than just transport modes?

**Dr Worth**—That has not been done on the northern railway line but it has been done on the southern railway line. The stations have plans for shopping centres and living areas—

apartments. The one at Murdoch will have student apartments for students from Murdoch University, which is five minutes away, and it is also very close to the major hospital.

**Mr McARTHUR**—You are doing a bit of a greenfield site operation. You are planning this activity before the railway gets there.

**Dr Worth**—Yes. Planning for those urban developments is already under way, before they have put any railway line down.

**Mr McARTHUR**—Are you happy with that, from your perspective?

**Dr Worth**—I think we are.

**Mr McARTHUR**—Do you think it is the right thing?

**Dr Worth**—Some of our cyclists have been upset because there is a small budget, a limited budget, and cyclists' access and routes through the stations have not been looked at. But generally we are happy with that development.

**Mr JENKINS**—The success of the Subiaco redevelopment.

**Dr Worth**—Centro, yes.

**Mr JENKINS**—What elements from that should be highlighted?

**Dr Worth**—Closeness to urban amenities, and certainly the design is very upmarket: something that you would find in Darlinghurst in Sydney or an another inner suburb of Sydney. You are also dealing with an area where the population is very environmentally conscious—the average wage and the social demographics of that area. You are dealing with people who can see the advantages of having one car, being close to the railway line, close to the main footy oval—things like that.

**Mr McARTHUR**—Why do you think you are winning that argument in Perth and we have not won it on the eastern seaboard? Is it because you have been so dependent on the car, or you have more space to put in a new railway line, which the eastern seaboard does not have?

**Dr Worth**—I think there are two reasons, one of which is that Perth has been so car dependent compared to any other Australian city. We are so far behind Sydney and Melbourne in terms of access to good public transport. Secondly, I think both sides of politics are seeing the problems of Perth expanding ever outward—for example, the development costs, which are all subsidised by the government, to put down power and water and roads, et cetera. Under the present budget situation, we just cannot keep doing that.

**Mr McARTHUR**—That came to the bottom line of government planners and policy makers—that the spread of Perth emphasised this difficulty of quarter-acre blocks being a long way out.

**Dr Worth**—Yes. In fact, the southern railway was started by the previous Liberal government. They began the planning, they set the route, and so on. The only new thing that has happened under the Gallup government has been the setting up of a process called Dialogue with the City, which are big events like they had in New York to look at the replacement of the World Trade Centre. You have 1,000 people in one place; they are asked questions; they input things digitally; discussions happen, and so on. The whole purpose was to look at ways of trying to stop urban growth and what could make our city better over the next 30 years. They are preparing a 30-year plan that will look at in-fill development, improving public transport; putting some form of urban growth boundary around Perth. That is probably the newest process—talking to individuals and people.

**Mr McARTHUR**—What do you think the eastern seaboard—Sydney and Melbourne—could learn out of the rail transit system you have in Perth?

**Dr Worth**—I think we are probably learning from you. Ours is a very simple system, in terms of only one line running north and south and east.

**Mr McARTHUR**—But the fact that it is working so well—

**CHAIR**—You have intelligent transport technology that at least enhances modal interchange. As I understand it, you have a timetable based more on frequency than, 'It's 3.37, so the bus is supposed to be here'. It is an eight or 12. The use of intelligent transport technology seems to be making the experience better than it is, I think, in our city where you have this bloody great origami timetable and you think, 'Bugger it. It's all too hard,' whereas you guys seem to have made it an easier thing to do.

**Dr Worth**—The individualised timetables have been very good because they show the route and the timetable on the back. They are mailed to people through the TravelSmart program.

**Mr McARTHUR**—Some of us have been arguing the case for the tram and rail system in Melbourne but the number of commuters has not increased and yet the system is reasonably good, if you know how to handle it. In your case, you are saying that you have had a dramatic increase, very much against the trend.

**Dr Worth**—Perth has been so car dependent—and not one car; each family has two or more—and it has been part of some sort of subconscious feeling of freedom: 'I've got a car. I can travel wherever I want, whenever I want.' There are no toll roads. It is a very different situation to the eastern seaboard. Another thing about TravelSmart is that they are only spending $1 million a year. It is not a huge budget. They are spending $1.4 billion on the southern railway and they are spending $1 million a year on TravelSmart. I think the return on investment is something like 30.

**Mr McARTHUR**—To convert some of these disbelievers into the system?

**Dr Worth**—Yes. They are getting a return on investment, which they have measured for the minister, of around 30. They spend $1 and they get $30 back. It is a wonderful system, and we have made submissions that it should be spread to other states.

**CHAIR**—That is a good argument.

**Mr JENKINS**—Your submission quotes some good evidence about the cost of transport, both at a regional level and then to individual low-income households. It also highlights location efficient mortgages. How would they be put in place?

**Dr Worth**—We would see them as some sort of government run program that encouraged people to buy property and houses closer to the city. Certainly we have been talking about that with the state government and also speaking to them in terms of trying to encourage them to have the developers of developments on the edge of the boundary pay the real costs of their development. At the moment they are heavily subsidised by the government and we think that is sending the wrong signals. Alternatively, we see those proposals probably making it harder for people to get their first house because it would push up prices, unless people are willing to live in other areas.

The problem with Perth, as in other states, is that everyone wants to live by a train station, by the coast, by a big shopping centre. It is not possible for everyone, and so there are suburbs—what we call middle suburbs—that are being overlooked for development. We would see those sorts of new mortgages as trying to encourage people to move there for their first house, rather than by the coast, and redeveloping those areas: places like Gosnells—I do not know if you know Perth, but it is a sort of middle suburb area—and Canning Vale, between the coast and the hills, as basically no development is happening there.

**Mr JENKINS**—Do we have sufficient tools to identify location efficient? If we are going to put in place something like this, we have to identify the type of neighbourhoods, communities, regions that qualify for this type of assistance.

**Dr Worth**—Certainly Peter Newman at Murdoch University has really been pushing this idea about those overlooked areas. He has areas in mind. He has been talking with the local councils there and so on.

**CHAIR**—So it would be based on identifying the areas, then encouraging the development through this as a vehicle as well.

**Dr Worth**—That is right.

**CHAIR**—So it is not only just to the individual; it is to the overall development.

**Dr Worth**—That is right.

**CHAIR**—The sustainability argument, and particularly Peter Newman's work, recognises that people do not travel just for the heck of it. You get through puberty and you do not do too much of that and people travel because there are legitimate parts of their lives that are dislocated. I am interested in your organisation's view on providing for economic space so that that travel requirement is reduced. In my city some of my constituents spend three hours in a car every day. I know they do not like that, but they want to live here and their economic opportunities are there. Where does that fit in your picture about using land use planning and transport tools to open up new economic possibilities away from the CBD and more to a regional, metro economic

hub that complements shorter travel journeys and not just a better choice of how those journeys are carried out?

**Dr Worth**—We have not put a lot of thought into that, but certainly we have been involved with the dialogue with the city process where they are looking at hubs. So you would build hubs that are linked to major transport and also infrastructure routes, like electricity, water and whatever. That is where the new developments would happen. But certainly the information gathered by TravelSmart is right along your argument—that a lot of trips are not home to work, they are home to shopping centre, home to footy club, home to mate's place.

**Mr McARTHUR**—And they are prepared to do it, are they? They are prepared to make that change to travel down to the locality and back again on public transport, after dialogue with TravelSmart?

**Dr Worth**—Sorry, TravelSmart and Dialogue with the City? A percentage of them will. We are not going to win everybody over. You are not going to get 100 per cent of people move. But I think the government's aim is to cut car trips by 30 per cent over 30 years. TravelSmart is already achieving somewhere around 12 to 17 per cent of that. So behaviour change is already achieving almost half of what your aim is. I do not know. It requires a range of methods, I think, given the costs of running a car, especially in terms of petrol being so cheap for 50 years. That is why we actually think there will be economic factors that will come into play outside the hands of government that will make people reconsider whether they jump in a car to drive to the footy oval, or whether they will walk again or they will cycle, or they will ring up their mate and get a lift. But I think you are right—the car is very important psychologically and socially in our communities in Perth.

**CHAIR**—The prospect for satellite regional centres in Perth seems to be underdeveloped as a conversation. I do not know whether it came up in the dialogue you were speaking of. Sprawl that is homogenously domestic housing—I have not met too many fans of that. Sprawl, if you want to use that value-laden term, with a more rounded community and more village kind of expansion, is less problematic but it does not seem to cut through in the conversation very much. Did it come up in the dialogues? Is it something that has been pursued? What are your thoughts on that?

**Dr Worth**—In specific areas, mainly south of Perth, around Rockingham and Mandurah which are coastal areas. They are very close already to the Kwinana industrial area and so there are those opportunities to do further work there.

**CHAIR**—So there is an economic life already in there.

**Dr Worth**—Yes. The only other area that both state government political parties are pushing is Bunbury, as a major regional centre, which is further south of Perth.

**CHAIR**—Is it two hours?

**Dr Worth**—It is about two and a bit hours, but it has a major port linked into the railway system.

**Mr McARTHUR**—By train, you mean?

**Dr Worth**—No, by car. There is a freeway almost to Bunbury—divided road almost to Bunbury.

**Mr McARTHUR**—But you are not proposing a train ride?

**Dr Worth**—There is a train at the moment but it is mainly used for freight.

**CHAIR**—A criticism that arose about transport planning generally is that there is one bunch of planners who look at the human cargo and there is another bunch of planners that trot off and do cargo. What are your thoughts on that? Particularly my understanding of AusLink is a little bit different from yours in that there is a recognition that humans off the road may be helpful for freight transport, and that opened up some possibilities. I am interested in your sense of how well that has been done together, realising that the infrastructure can push off each other for what are often perceived to be separate assignments, separate tasks.

**Dr Worth**—Certainly it has worked well in Perth. The new Labor government brought together planning transport and infrastructure into one department. We have been involved with a project called the Freight Network Strategy as a community stakeholder. We have sat down with the freight transport people and the public transport authority and the DPI bureaucrats, especially around Leach Highway, which is a major route between the rail freight network and the port. That has worked very well, although, from what I hear, it at times is tense between the different sets of bureaucrats because obviously they have different issues that they are particularly keen on. But I think it is a very good formal structure, bringing people under one roof and saying, 'These are the common issues. We need to solve them together.'

**CHAIR**—You have talked, either intentionally or not, four or five times around governance processes where different interests are coming together to find a shared purpose or a common ground. That strikes me as a crucial building block on more sustainable patterns of urban settlement and the like. Can you just talk about those processes and the conversations that are being had and how that is facilitating a bit of a buy-in from all the stakeholders and usual suspects, if I could put it that way.

**Dr Worth**—It is not as easy as I may have made it sound. Obviously our local government area might have very different priorities to the state government and the federal government itself might then have very different transport priorities. But certainly getting people together I think has been a big advantage. I suppose from a government point of view there are not many votes in it, and that is what probably makes it hard. There were not many votes in TravelSmart; that is probably why the Labor government wanted to cut it and we fought very hard for them to retain it. But I think it is critical that local governments, state governments and the federal government—who have a big pot of money, probably a bigger pot of money—get together to solve these issues. As we have talked about this afternoon, many of them are common across our major urban areas: access to home, home to work, home to hospital, home to shopping and so on.

**CHAIR**—The feds do distribute billions of transport dollars in community funding through local government and the like. Before arguing to the government that there is a case—and I think

there is a case—for additional funding to support sustainable city development, is it fair to argue that we could use the money which we have currently got going out more effectively by insisting that state governments receiving road funding and councils receiving Roads to Recovery money, for instance, have a regional, active transport plan on the table. I am not going to say what it needs to have in it, or what it precisely should look like, but to show us that that work is being done and to give us confidence that the money being handed over is being spent strategically and with a broader range of policy goals in mind.

**Dr Worth**—Yes. I think there is great benefit in that. In fact, with the Dialogue with the City draft statement—which has not been released yet by the minister—one of the decisions they came up with was that the state government would not build any more major roads for 10 years and that the funds would go into improving the present system and improving public transport—getting people out of their cars. I think those sorts of decisions can only be made if there are very good relationships between the federal, state and local government arenas.

**CHAIR**—With the prospects for $400 million a year to councils under AusLink and the Roads to Recovery, plus the new $200 million strategic pool—and the project evaluation criteria for that have not been released yet—would you be looking for that to pick up some of the active transport issues?

**Dr Worth**—I think so. I suppose some of us get a bit frustrated that we are in a local suburb that has its roads resurfaced every three or four years, even though they are in very good condition and the money could be spent for other purposes.

**CHAIR**—Half your luck.

**Dr Worth**—At the local level that is probably where you have the walking and cyclist activists who could come up with other ideas and could work with public transport providers to make the public transport system more user-friendly.

**CHAIR**—What about if you are a committed active transport proponent and you are keen to ride your bike to the bus stop and you cannot put your bike anywhere and then you get off the bus and you get on a train and people look at you like you have Ebola virus, trying to bring your bike onto a train in peak hour? Then you get to the office or your workplace all hot and sweaty and there is nowhere to park your bike and nowhere to have a shower. Do those TravelSmart programs look at those front and back end things—some are appliances, some are services, some are facilities—to make the whole experience as hassle-free as it can be, or do they just work with the tools that are on the table?

**Dr Worth**—No. That has been one of the advantages of having one department to liaise with—the Department of Planning and Infrastructure. We only need to go to one meeting and get bureaucrats from the different areas to talk through those issues. TravelSmart has been now rolled out to workplaces and so they are going into large companies like Woodside oil and working with them to make sure there are showers. In fact, I think they have over 300 people riding to Woodside to work.

**CHAIR**—It is a long ride to Karratha and you need a shower.

**Dr Worth**—Yes. People recognise that. As I have said, these issues have been talked about for 30 years. I can remember when I lived in Melbourne in the mid-1970s and worked with Friends of the Earth on exactly the same issue. It is just a matter of governments giving some priority. We are not saying, 'Everybody get out of their cars.' We are saying, 'Let's move, over time, a reasonable proportion out of their cars and into other transport.'

**CHAIR**—An idea that has some appeal is to put in place an incentive pool of cash in a manner not dissimilar from the competition commission. I mean, trying to remove featherbedding and preferential deals that were anticompetitive and costly to everybody else except the direct beneficiaries. It takes a lot to remove, and that competitive framework said, 'Work with us and that will deliver benefits and we will share the proceeds.' If there was a sustainability commission set up overseen by the feds with hundreds of millions of dollars of incentive payments, where population centres could come to the feds with proposals that would otherwise not occur, is that a model to get around the vast differences in population centres, cities across Australia which have a range of different sustainability challenges and reward performance rather than trying to target money and hope something good comes out of it?

**Dr Worth**—I think in principle it sounds like an excellent idea. I suppose it is just how you would make it work. In a sense, with the national competition policy, we have seen in WA that maybe we should not move as fast in opening up liquor trading on the weekend and so on. You get local and regional effects which somehow that would need to be able to handle. I think if you are looking for ideas, the community has ideas but they lack the funds to put them in place.

**CHAIR**—We have been inundated with ideas, but most of them say, 'Give us more money and we will do what we are doing now even better.' It is not unexpected but it is not what we looking for either. 'If only we had more money we could build a better freeway and a better train and a better mouse trap.' That is fine and I can understand where people are coming from, but it seems as though the intellectual shift to a new sustainability paradigm has not quite been made in some quarters and that congestion is fixed by adding another lane to the freeway rather than saying, 'Hang on, what are the causal factors here and is there a better way of responding to this rather than just bulking up the traditional responses?'

**Dr Worth**—Certainly that is what we are trying to point out. Before deciding on an extra lane of freeway, let us look at 20 or 25 years out what will be the price of petrol and how will that impact on our cities? If it is $10 a litre then there is no use putting in any more freeways. Let us spend that 25 years changing our cities so that they can handle petrol at that price. That is why, even though we are the Sustainable Transport Coalition, we have really taken up this oil issue, because we seem to be putting the cart before the horse, worrying about trains and freeways and whatever. If, in 25 years, petrol is $10 a litre and nobody can afford to buy it, or they cannot afford to live where they want to live—

**Mr McARTHUR**—What are you guys saying about that price of fuel in 25 years time? What is your scenario? Give us a futuristic view.

**Dr Worth**—We do not have one. As we said, there are optimists and pessimists. Our conference in August will be orientated around scenarios: $3 a litre, $10 a litre. There is some discussion that, if the petrol or the oil price rises quickly, if there is a revolution in Saudi Arabia, then in fact that will cause an economic crash which will drive the prices back down to where

they are now. It is a bit hard to foretell, but my feeling is it will be a lot higher than it is at the moment. If they are already paying $2 a litre in Europe, it is going to be a lot higher in five or 10 years. Rather than trying to put in place nice maps with planning on them, let us think what the world will be like. Energy drives everything. It drives not only our cities, but our agricultural sector; fertilisers—

**Mr McARTHUR**—Some of the critics would argue that $2 in Europe or the UK is tax driven. I think you have said that, in the UK, 70 per cent of the fuel price is tax.

**Dr Worth**—Yes.

**Mr McARTHUR**—So some people would think it is just a revenue measure that pushes the price of fuel so high.

**Dr Worth**—Sure, but you take the tax away and we use up the oil quicker. We are faced with a crisis even closer to hand. I think the whole idea of world parity pricing or higher prices is good in the market sense. It tells people you are dealing with an irreplaceable energy source and you need to pay a proper price for it.

**CHAIR**—Hypothecating that fuel tax road user charge, you point to a sustainable transport fund.

**Dr Worth**—Yes.

**CHAIR**—Everybody tells me that is a great idea as long as they control it. How would you see the distribution of those resources? Is there a commission required that is arms-length and the government cops the smack around the ears for raising the revenue, but has modest influence over how it is spent? What kind of model would there be for appropriating that fund, bearing in mind that treasuries hate hypothecation? In the event that a road user charge or something else directed resources at the transport task, how would you operationalise the idea of rewarding more sustainable transport models?

**Dr Worth**—We have not thought much about it, but my personal view is that we convince individuals to allocate part of their wage into super—nine per cent—and we could do the same with road users. We would give it back to the people who put the money in there. In WA if over time their road users have put in $10 billion and suddenly they need to put in a new train line, then they would get part of that back, I would think.

**CHAIR**—It could be argued that even just notionally hypothecating road taxes would disadvantage Western Australia because of the greater share of the revenue stream received, compared to the amount contributed. So there would need to be some policy overlay that identified what was valued and what was important, otherwise you would never get a road built up to the Pilbara. This is the challenge. Do you just go pure benefit cost ratio?

**Dr Worth**—I do not know. It is really a political question as to how the money is split up. There is a saving in GST, I would imagine.

**CHAIR**—A lot of the motoring organisations are in heated agreement with you. They want to see it hypothecated as well, but they want engineers to decide where the money goes.

**Dr Worth**—Yes. I think what we are saying is: if there is some dramatic rise in petrol prices because the oil price is going up, it is not just a car issue; it is a social and economic issue right over Australia. That is why we need some sort of commission, to try and look at the future, look at where we are going. Even if it only goes to $3 a litre, what does that mean? It means very different cities, I think, to what we have at the moment.

**Mr McARTHUR**—Can I just run the bike riding argument. Give us your view on that.

**Dr Worth**—On bike riding?

**Mr McARTHUR**—Yes, bike riding. Do you really think you could make a change?

**Dr Worth**—In what terms? In terms of saving energy?

**Mr McARTHUR**—Do you think more people would actually get on their bike and ride to work, or ride to the social location, or is it just too hard?

**CHAIR**—Like today, the good folks of Adelaide would end up with a GT stripe wet mark up their bum.

**Dr Worth**—Sure.

**CHAIR**—Some of those problems are a little bit of a turn-off for some cyclists. In fact, evidence was given to us that wearing bicycle helmets is killing people. People are so turned off from bike riding because of the helmet that they then have a whole lot of health problems from the activity, which is one of many interesting arguments that get put to us from time to time. What do you do to sex up bike riding? It cannot be the weather, otherwise the Dutch would never be out on a bike.

**Dr Worth**—There are different sorts of bike riders. There are the mad ones—and we have some of them in our coalition, who probably would have the same ideas about bike helmets—and then there is the general population, whom you can convince that it is fun and it is healthy and it has health benefits. Certainly we work with other NGOs working on health issues. We are in a committee called Walking WA, and that is the sort of thing that we would put there as well—that there are health issues. Just ride around the block with your kids, you know. One of the big issues in WA—and you have probably heard this before—is the huge drop in children riding bikes and walking to school. Now they all get driven by their parents. What does that mean in terms of health, obesity and so on? I think that those who ride bikes love it. There are lots of benefits, but we are not saying that everybody should ride a bike. I have a bike and I have not ridden it for a while, but I may get around to it. I am not a pure cyclist.

**Mr McARTHUR**—If you do not ride it, we have no hope. You are our guide and mentor.

**CHAIR**—Dr Worth, thank you for your time today. We appreciate you making the trip over from the west.

**Dr Worth**—Thank you for inviting me to attend.

**CHAIR**—And keep punching.

**Dr Worth**—Is the process now that you make a report—

**CHAIR**—We still have some further hearings and inquiries and inspections to carry out. I think we are hoping to be in a position to have something before the election is called, but we do not know when the election is going to be called. We are up in the air a little bit because, if the election is earlier, we may not have concluded our work. We are optimistic that the new parliament—because we are a creation of parliament—would recreate us and we could get a further reference to continue our work. If the election is later, our work may be in more substantial shape. At the moment we are just trying to draw out the issues and the themes so that we can be nimble, whatever happens. Our timetable is looking more near the latter half of this year for something, but it will depend a lot on other events.

**Dr Worth**—Thank you very much for your time.

**CHAIR**—Thank you.

**Proceedings suspended from 12.21 p.m. to 1.12 p.m.**

**HICKINBOTHAM, Mr Alan David, Chair and Founder, Hickinbotham Group**

**HICKINBOTHAM, Mr Michael Robb, Managing Director, Hickinbotham Group**

**CHAIR**—I am happy to resume today's hearings and welcome the representatives of the Hickinbotham Group. Although the committee does not require you to give evidence under oath, I should advise you that these are formal proceedings of the parliament. Consequently, they warrant the same respect as proceedings in the House itself. It is customary to remind you that giving false or misleading evidence is a serious matter and may be regarded as contempt of parliament. On that bright and cheery note, would you like to make some opening or introductory remarks?

**Mr M. Hickinbotham**—We are very interested in sustainable development. We believe this committee is to be commended for taking the trouble to better understand the issues. You will have seen from our submission that we have our own view on how cities should be developed in the future, in a way that is more environmentally sustainable, that provides a higher level of amenity, that creates a better living environment for its citizens and, if you like, we can provide you with some details of that model today.

**CHAIR**—Thank you. Fire away.

**Mr M. Hickinbotham**—Essentially, the model we have today has arisen for a whole variety of reasons. It is urban sprawl. You have good and bad examples of that, but we believe there is a much more innovative approach to development—that is, a series of nodal villages. These are villages that would comprise between 2,000 and 5,000 citizens. They would be ringed by agriculture. They would have an old-style town square, so essentially the township as it evolved in the Middle Ages; in recent times, country towns, the things that we liked about country towns. Studies show that people, if they have a choice, prefer to live in a rural or semirural environment.

The idea is high quality housing that is energy efficient which would reclaim and re-use its waste water. That waste water would then be piped, once it is filtered and purified, back into the home so it can be used for non-potable purposes. It could also be used for productive purposes within the ambit of the town itself. That would create wealth and employment. It would create a better living environment. It is a more sustainable model of development.

There are other aspects of the nodal township model which you might be interested in. Alan, who was the person who first conceived the idea, can speak more authoritatively about it than I can. But we did bring some plans to show you how these townships could be developed. We are very interested in this whole concept. We partnered with the CSIRO on a project which involved trial into aquifer storage and recovery, and a wetland system we constructed at Andrews Farm. Under that model, excess stormwater, instead of being rushed out to sea, is injected into the aquifer, stored there and then re-used in the summer. That water is being used at a cost of less than 50 per cent of the current SA Water rate for water.

We mentioned the water reclamation side of it. We built the water reclamation plant for the township of Renmark. Previously their waste water was leaching out of oxidation ponds, which were underspecified, into the Murray River. We built them a plant that purifies and filters this waste water in a way that it can be re-used. It is currently being re-used in environmental projects and can be re-used for municipal irrigation.

So our idea is to take the pieces of all of these puzzles and put them together in a world-leading, cutting edge, innovative form of development that would create attractive buffers around our cities—a series of villages. It would dispense with urban sprawl and it would be a far superior form of development than what we currently have. Alan can amplify those ideas better than I can.

**CHAIR**—Great to have you here, Alan. Fire away.

**Mr A. Hickinbotham**—Nice to be here. I do not know whether it is a question of firing away. Where I would start from is a request to be allowed to do things in my own way and make my own mistakes and succeed when I do succeed and get the credit when I do succeed. That way we build better houses. We build houses with the bricks holding up the roof and using their strength and using their ability to inhibit heat transmission. We would probably have no gutters. We would probably do without gutters on the roadways consequently. We would use a lot less water consequently. As Michael said, we would be reclaiming effluent and so on. There would be a whole host of things that we would be doing.

We would not be bound by people who draw rings on the map of Adelaide, so that we would start in 1975 when we put together a series of transactions, 12 in all, which result in a very fine subdivision. I think it is the best housing estate in Adelaide in terms of the reaction of the people who buy it and their response to living there.

**CHAIR**—Which one is that, Alan?

**Mr A. Hickinbotham**—Andrews Farm. It has the best Roman Catholic and Church of England schools in Australia there. In five years they have gathered 1,200 pupils. It adjoins an area which is regarded as quite the worst housing in Australia, Davoren Park. It has overcome those inhibitions. Water has been put down in the aquifer, as Michael explained, and is pumped up in the summer and used to water the ovals. Even so, as much water as fills Sydney Harbour runs out to sea every year and kills the fish in the fishing grounds. In all, our housing is just one glorious mess, and it is because people like you sitting here, perhaps, are telling us what we should be doing instead of letting us do it.

**CHAIR**—I presume you are a builder by background. What was your overriding philosophy when you started to develop that concept?

**Mr A. Hickinbotham**—The overriding philosophy was to get hold of something started from the beginning. You cannot reclaim effluent in houses one at a time that have three pipes, unless you have approximately 1,000 houses to deal with. You get economies of scale. All these little, itty-bitty places all over South Australia where they are in all sorts of strife because they cannot deal with the effluent, or the effluent has clogged them down; that does not happen when you get large-scale developments like I have seen in America, which is what we should be doing. You

cannot allow every councillor in South Australia to subdivide his own land, which is what they usually do when they get on the council. It is one of the first things they do. So you have to have a decent area where you can introduce these economies and these improvements.

**Mr McARTHUR**—With the particular housing estate or development?

**Mr A. Hickinbotham**—Yes. We have 1,300 blocks at Andrews Farm which in the beginning nobody wanted and now everybody wants.

**Mr McARTHUR**—As an overriding philosophy, you had a view to having more blocks so that you could run things like the waste, the sewerage and the water collection within your own development.

**Mr A. Hickinbotham**—We had in mind to do all these things. We have succeeded in some of them but not as many as we—

**Mr McARTHUR**—Why were you a bit ahead of your time in developing these concepts?

**Mr A. Hickinbotham**—I suppose I am an educated person.

**CHAIR**—Is Andrews Farm out Elizabeth way?

**Mr M. Hickinbotham**—It is at Munno Para, just past Elizabeth on the northern fringe of Adelaide. Just to put what Alan said in context, the system we have at the moment in Adelaide is that they put a ring around the city, supposedly because the government does not want urban sprawl and it cannot afford to pay for infrastructure. Sixty per cent of the land sold within that boundary is owned by the Land Management Corporation, which is a government authority. Their charter is to maximise revenue to the government. What they are doing is creating urban sprawl. They have hemmed us in. We are constrained. If we pay the sort of money they want for an allotment, we cannot do anything other than develop in the traditional way. We do not think that is necessarily a good thing.

On the point of infrastructure, we currently pay for it. We pay for all the pipes and all the roads. We develop the land. At Andrews Farm, as Alan mentioned, we founded a joint ecumenical Anglican-Catholic school, the first in Australia, which we endowed. What the Land Management Corporation charter does is prevent innovative development. We need large-scale development so we can invest in the sorts of innovations that will take development into the 21st century and allow people to live in an attractive living environment that is environmentally sustainable.

I have tabbed some photos in some magazines. That is a photo of this plant. We have a photo of Andrews Farm in here and a photo of the aquifer storage and recovery system, the nodal village concept and the plant we built at Renmark. There is no reason why every development could not have this sort of infrastructure. But, as Alan says, the way they are selling parcels off now is you just do not have any economy of scale and you do not have any critical mass. The government has interceded and now they are starting to develop land in competition with the private sector. It makes it all but impossible for us to do the things that need to be done.

**CHAIR**—We heard from the Delfin group and from VicUrban and a few others, making a similar point about the scale of the project you need to incorporate some of the features that you are talking about, such as your 1,000- to 1,200-lot threshold, to get package treatment plants, waste water re-use, triple piping and the swail drain treatment rather than kerb and channel. Have they all been concepts implemented at Andrews Farm?

**Mr M. Hickinbotham**—Absolutely.

**CHAIR**—It was interesting to hear from Mr Hickinbotham about buildings themselves. You do house and land packages, so you are able to incorporate concepts of solar passivity, water efficiency and energy efficiency into your built structure as well as your subdivision.

**Mr A. Hickinbotham**—Yes, which is the way it should happen.

**CHAIR**—Agreed. You have done this through your own choices and your own principles. We are constantly being told that that will only happen if there is a more interventionist approach by governments, at whatever level, on land use planning controls under the Building Code of Australia and similar things.

**Mr A. Hickinbotham**—That would be the direct opposite of what should happen.

**CHAIR**—Can you draw that out a bit? Are you feeling people will only do the bare minimum or that it will stifle innovation?

**Mr A. Hickinbotham**—I have been able to extensively look at what has been done overseas. I know most people have at some point but I went the hard way and looked at what they did in the hard way. You get ideas from just seeing how other people go about things. Then you apply those ideas to your own situation. The Adelaide Plains, for instance, have an extensive underground water aquifer system which is quite marvellous. It is really something that we should respect and honour. Professor Woolhouse used to say that people on the Adelaide Plains have an income of $30,000 a year but they should have an income of $130,000 because the Adelaide Plains are fertile, flat and everything about them is right. The water is there. They have been ringed off just at the point in our development history when we could have taken on projects as large as the one we have taken on.

**CHAIR**—We did not get a chance to hear from the South Australian government this morning; they did not attend. We had some questions around the urban growth boundary. Let us imagine that was not there. Would you see the sort of doughnut contained village model that you are advocating as being rolled out with high density around the hub and the core of it moving out to rural residential? How would you go about making sure that the guys owning the next allotment did not want to do exactly the same as you did? You would end up without that very characteristic that you are aspiring to achieve.

**Mr A. Hickinbotham**—We would gather support as we went along, as we gathered support at Andrews Farm, over and above whatever is artificial in this housing boom, as they call it. We would continue to show other developers how you could do it by combining the building and the developing process and the town planning process under the one roof, and by introducing better ways of doing things. A brick is meant to hold a roof up. It is not meant to be a veneer. That is

one of the first things I would do if I had my own way. I do not believe there is a need for gutters but you would have to introduce a series of other factors if you eliminated gutters. We eliminated gutters from a house and someone put the gutters back on! That is what the public thinks about that. We also put underground drains around that house. Those underground drains are still there but the gutters have been put back on.

**Mr M. Hickinbotham**—Mr Chair, just touching on what Alan has just said in answering your question, it depends on your philosophy. If you believe the government should do everything and provide every service, fine; you will be in favour of government intervention. If you believe in the private sector and the strength of the private sector to provide innovation and forward thinking, then you will be less inclined to favour government intervention.

**CHAIR**—Or you might be like me and think extremes at either end are equally hazardous. I will use your example. You are presenting to us an innovative, leading example of subdivision that is not replicated widely. There is nothing stopping a number of the things that you are doing, yet they do not happen. We cannot always be certain that there will be homogenous behaviour by people. Given the scope to do the right thing, some people choose not to.

**Mr M. Hickinbotham**—The constraints that developers are operating under are such that the government in the broader sense makes it almost impossible for private developers to be innovative. We are innovating because (1) we are well capitalised and (2) Alan is passionate about it and I have inherited that passion. You talk about energy efficient housing. The greatest form of energy inefficiency heat transfer is the picture window. That is where heat leaves the house in winter and enters the house in summer.

People choose to live like that, partly because energy is very cheap. They want a large airconditioner and they want big windows. A hundred years ago when Alan's house was built in Unley Park—the walls are a foot thick and the windows are very small and it has a veranda around the entire house—

**Mr A. Hickinbotham**—The ceilings are 14 feet high.

**Mr M. Hickinbotham**—energy was very expensive. You could only get it by digging or chopping. People had different priorities.

**CHAIR**—I understand your point. I am just suggesting a fundamentalist approach, one way or the other, is naive. It ignores reality and it is misguided, in my view. In Queensland there are Tuscan McMansions going up all over the place with no eaves at all. There is no logic to that, other than to beef up the plot ratio on the block. Nobody wins, other than there is a bigger footprint on a postage stamp size allotment. There is no logic for people doing those things.

**Mr M. Hickinbotham**—I understand what you are saying.

**CHAIR**—I am saying that sometimes people left to their own devices, even well-intentioned people, might not make a wise choice. But coming back to my question: was the rural residential setting that you spoke about part of your development envelope or were adjoining property owners providing the rural residential vista and ambience?

**Mr M. Hickinbotham**—Part of the entire envelope. Part of the land could be given to a buffer, which could be used for intensive agriculture, which itself would use the reclaimed water and the stormwater and would create employment and job opportunities for the people in the town.

**CHAIR**—You would go village square, high density, commercial use concepts; drop the density as you go out, and then have capacity for the—

**Mr A. Hickinbotham**—I looked at a town in California—Sonoma—and spent a bit of time there. It consists of the council chambers in the centre, a park around the council chambers, and the town is confined to 10,000 people by artificial means. If you want to build a house in Sonoma, you are asked to dig a pit. If the pit fills with water, you cannot get permission to build; if it does not fill with water, you can. Most of the pits fill with water. That is the artificial expedient, you might say, by which they limit the growth of Sonoma to 10,000 people. But in law it becomes a self-contained, self-sufficient small town. I thought if you could do that in Sonoma, you could do it on the Adelaide Plains and repeat it at Angle Vale, Two Wells, Virginia. There are a lot of small towns on the Adelaide Plains. I grew up at Roseworthy College—my father taught there—and used to follow the cricket and football teams around, so I know those areas very well. That is how we established Andrews Farm and made it a success, I think.

**CHAIR**—The airfield is there; GM, the wool scourer is around here, isn't it?

**Mr M. Hickinbotham**—That is right.

**Mr JENKINS**—Tell us about how the market reacted. You said Andrews Farm was slow to get off the ground but now people are bending over backwards.

**Mr A. Hickinbotham**—It is an artificial market now, but even if it were not, we would still succeed quite well because we have put a school there; we have put water there; we have wetlands. There is a whole series of improvements that we have brought about. We have also managed the garden side of it quite well. We have a garden competition and people compete for a $5,000 prize for the best garden, so people are very conscious of that. But all of this takes time. We have been there since 1975 when there were 12 transactions, and the government intervened. They decided that part of the land was wetlands and rearranged the whole design, which upset the pattern that I had. There were 12 transactions which came together in an almost perfect square and it was very easy to subdivide.

There was an opening for a school there because of the land that was set aside for a reserve, and the school is now regarded as one of the most successful of its type in Australia—if not the most successful. But the shape of that subdivision now has a pimple on it; it is much harder to finish it off, but we are still doing quite well. We once thought that we would repeat that exercise by going further out but we are now beaten by this ring. The ring decides what you can and cannot do.

**Mr JENKINS**—You would argue that, because it can be self-contained, the ring is irrelevant.

**Mr A. Hickinbotham**—If my theory is right—that you should have self-contained Bordeaux type villages of 2,000 to 5,000 people, ring routed, and connected by gravel roads so that you do

not have hoons travelling at 100 miles an hour on a bitumen road in the country—that is one way of meeting that problem. If you had those sorts of small towns repeated on the Adelaide Plains, you would have a natural formula for the growth of Adelaide which would be effective and people would like to invest in it. I believe they would invest in it.

**Mr M. Hickinbotham**—If I can use Andrews Farm as an example, what is interesting is that it is surrounded by some of the most depressed and distressed housing areas in Australia. They are high-need areas. You have Andrews Farm as an oasis within that, which has a community with real spirit, a very attractive living environment, and a school which is now the second largest school in the state, only having been established in 1996. Even though it is not a pure expression of the model, people are drawn to it.

**Mr A. Hickinbotham**—An interesting thing about the school is that it is staffed by people who are interested in the parents as well as the schoolchildren, so that instead of having teachers who want to go home at four o'clock, they educate the parents from six o'clock to eight o'clock on computers and things like that. They do that voluntarily and like doing it because there is a feeling in the community that, 'We're here to help each other.'

**CHAIR**—Is the transit function of Virginia established or is it an aspiration? Can you explain the transport task in connecting what appears to be a very attractive domicile area with employment and things like that?

**Mr A. Hickinbotham**—Yes. Virginia is one of the fastest growing towns in South Australia.

**Mr M. Hickinbotham**—The way we saw Virginia linking into this was as a hub town. It does have infrastructure; it has services that people need; it is an attractive town in itself; and it is growing.

**CHAIR**—It has rail, does it?

**Mr M. Hickinbotham**—That is right.

**CHAIR**—It would be pretty handy to be ringed by rail, yes.

**Mr A. Hickinbotham**—It is on the road to Broken Hill and so on. Everything is right about it. I am absolutely bewildered by the decision to put a ring around the Adelaide Plains.

**CHAIR**—Have you had conversations with the state government about that? If their aim, their goal, is to address public infrastructure expenditure, not add additional demands to the natural systems that support the greater metropolis of the Adelaide area, I would have thought they would be open to a conversation about these things. It does not seem inconsistent with that and they may be interested.

**Mr M. Hickinbotham**—We have an excellent relationship with the government. What is interesting is that these ideas seem to take root and mushroom of their own accord.

**Mr A. Hickinbotham**—They become a fashion.

**CHAIR**—This ring has a life of its own now, has it?

**Mr M. Hickinbotham**—It came initially from Britain, where they have completely different imperatives to South Australia and to Australia generally. This is a form of second-hand colonialism, if you like, coming through to Melbourne and then eventually our bureaucrats pick it up here.

**Mr McARTHUR**—In terms of building construction, you mean?

**Mr M. Hickinbotham**—In terms of putting a ring around the Adelaide metropolis.

**Mr McARTHUR**—The town planning concept.

**Mr M. Hickinbotham**—Town planning concepts, that is right. They are shaping the way we live and it affects us initially because we are in the business of developing communities. They justify it on the grounds of infrastructure. They say, 'We can't sustain more people for our schools.'

**CHAIR**—It looks like you are swimming in it here, though.

**Mr M. Hickinbotham**—That is right. This area has schools which are half-empty. Playford needs more people.

**CHAIR**—You have rail coming out of your ears; you have roads off to everywhere.

**Mr M. Hickinbotham**—They need a rate base that can sustain the township of Playford, which is a very poor area. They need growth. We are saying that cities can grow in a sustainable way that is attractive and creates a favourable living environment which is also environmentally and economically sustainable.

It is interesting that the most attractive areas in Adelaide are often inner city suburbs. These are areas that were developed before you had planning controls, before you had a lot of the requirements that we currently have. The planners gained the ascendancy postwar.

**Mr McARTHUR**—Why were they good without the planners?

**Mr M. Hickinbotham**—Because people could live the way they wanted.

**Mr A. Hickinbotham**—They did not even have foundation contractors. I live in an 1870 house and it has no foundations. We are obliged to build foundations like that on the most stable soil in the Adelaide Plains.

**Mr McARTHUR**—I am interested in your concept that some of your better suburbs here in Adelaide developed without any real planning.

**Mr M. Hickinbotham**—And the same in Melbourne and Sydney. Do you know why? Because people could live the way they wanted. You can have a jazz bar next to a pub. It was all mixed up.

**Mr A. Hickinbotham**—But in a good-mannered way, except Elizabeth.

**Mr M. Hickinbotham**—When planners gained the ascendancy, they had this idea that all the people should be here, all the employment should be here, all the light industry should be here, and everyone should travel by car.

**Mr McARTHUR**—Let us just make an observation in the case of Melbourne. The planners got hold of it pretty early in terms of running out some of the streets and putting in a master plan, compared to Sydney or New York. What would you say to that?

**Mr M. Hickinbotham**—It was the Light plan. Colonel Light planned Adelaide and he did it in a very intelligent way, but within that context, within that framework, people could pretty well live the way they wanted. They could establish things. What is interesting now is, they have this new planning system and there is a clever fellow—I cannot remember his name; he is from Scotland via England and Ireland—who has helped to re-energise Dublin. The way he did it was to dispense with the planning controls, most of them, that currently exist. He said, 'If you want to have a jazz club in the middle of a suburban neighbourhood, you should be allowed to do it.' Essentially they just mixed it up again and allowed people—

**CHAIR**—Vitality.

**Mr M. Hickinbotham**—Yes.

**CHAIR**—Brisbane city is saying they want to become a city of vitality because they think that, once you get past the hardware, human interaction and all that is what makes a place become a community.

**Mr A. Hickinbotham**—Gives it real life.

**CHAIR**—Yes. That is what they are trying to do in Brisbane.

**Mr McARTHUR**—Chair, can I just say here on the record, I remember Alan Hickinbotham when he broke his leg in 1951 playing for Geelong.

**Mr A. Hickinbotham**—Nineteen forty-six.

**Mr McARTHUR**—Nineteen forty-six, whatever year. I see you played in the championship team as well. Chair, you ought to get that clear. It is a long while ago. I come from near Melbourne, from Frankston, so I remember you well with Bernie Smith and Lindsay White and all those heroes.

Now, if you were putting in order of priority your whole conceptual argument, would you start with this energy-waste water argument or facilitating the people? Where are you starting your argument of developing your Andrews Farm type arrangement?

**Mr M. Hickinbotham**—It is a complex matter. Developers such as us need the ability to have some sort of economy of scale. We cannot have government competing with us in what is essentially—and you might say this is an ACCC matter—unfair competition, because if you take

a whole of government view, they are the umpire as well as wanting to play on the ground. They are wanting to develop in their own right, in competition with us, but they control the land and the planning system, and they decide where the growth boundary is.

**Mr McARTHUR**—At Andrews Farm you bought the land and then you developed it in a way that was compatible to your ideals and philosophies. Is that right?

**Mr M. Hickinbotham**—As far as we could within the constraints of what existed at the time.

**Mr McARTHUR**—It was outside this ring, was it, at the time?

**Mr M. Hickinbotham**—The ring did not exist. They had a different planning system. They had what they called deferred urban, which was good because it was a buffer zone where the government was saying, 'This area could be developed in the future, subject to certain conditions being met: infrastructure, demand, orderly planning principles.' That was a sensible way to go. Since that time, they have put a hard ring around the city which does not allow for any growth, even if the arguments are the most meritorious that could be advanced. That in a way constrained us.

**Mr McARTHUR**—Let us move on to the fact that you have a greenfield site at Andrews Farm, as I understand it. Are you saying that has worked well because of your general philosophic view on this water recycling, the sewage control and that you ran it as a human, dynamic unit with the school and with the community being happy in that environment?

**Mr M. Hickinbotham**—Yes, absolutely.

**Mr A. Hickinbotham**—We could have made it better if we could have had a decent shopping centre there to start off with. That is one thing, but we were beaten by the planners there, too.

**Mr McARTHUR**—Could I just raise the relativity of the new towns in the UK, where they shifted people out of London and put them in the new towns around London, on the concept that, 'If we plan it, it will all work.' My judgment is that those new towns were basically a failure because they did not get the social, the people factor, involved. Would you agree with that assessment?

**Mr A. Hickinbotham**—Yes.

**Mr McARTHUR**—Why were you able to overcome that experience?

**Mr A. Hickinbotham**—Because people at Andrews Farm are proud of Andrews Farm. You have policemen there who, in their spare time, if you have vandals breaking into new houses, as you often have, attempt to do something about it; whereas if they break into a government home, who cares?

**Mr McARTHUR**—How did you develop that ethos in that community?

**Mr A. Hickinbotham**—Because they are those sorts of people. They are people who own houses and they are rather different to people who do not own houses.

**Mr McARTHUR**—So it is a private ownership argument?

**Mr A. Hickinbotham**—Davoren Park is a Housing Trust area and the worst housing in Australia.

**Mr M. Hickinbotham**—We work hard to help people who are on the cusp of owning their own home. We organise their lives so they can save enough money to achieve a deposit such that they can buy a home. It is incredible the effect it has on them, a stake in the Australian way of life. Suddenly they are mowing their lawn. They have something to give to their kids. They walk a little bit straighter and prouder.

**Mr McARTHUR**—If we extend that argument to your more environmentally sustainable arguments of the water, the sewerage, the waste and the energy, why are you ahead of the game in your Andrews Farm type development?

**Mr A. Hickinbotham**—Because the government decided that, with an election coming on, they would have a wetland. In the course of having a wetland, they rearranged our whole subdivision. Instead of lying down and saying, 'Well, this is the government and they've buggered it up,' we said, 'What can we do with those wetlands?' We had a good manager in charge of the Mines Department. He is in Queensland now. He supported us, so we drilled six bores down to 180 metres. We had an Egyptian fellow who had done this in Egypt, done it all over the place, and knew exactly what he was doing. He had no help whatsoever; did not even have an apprentice.

We had $1 million allowed to us by the Taxation Department of the actual amount we spent, which would have been much more, but after six drillings and then after looking at that water with the CSIRO for a long time—we activated the CSIRO too. They became interested in what was happening and they were intent on seeing that the water did not attenuate. It did not get worse, it actually improved.

**Mr McARTHUR**—I just want to get it clear—

**Mr M. Hickinbotham**—You are asking why has Andrews Farm been successful?

**Mr McARTHUR**—Yes.

**Mr M. Hickinbotham**—I think because we have an interest in good urban development. As Alan says, we have travelled the world looking at the most successful urban developments in America, in Europe, in other parts of the world. We have tried to bring those principles back to South Australia and adapt them to the local environment. We are also passionate about the environment, so we are very interested in using our water resources in an intelligent way. When you boil all that down, we have tried to apply those principles.

**Mr McARTHUR**—What sort of rainfall out there, just as a matter of interest?

**Mr A. Hickinbotham**—Twenty.

**Mr McARTHUR**—Twenty inches?

**Mr M. Hickinbotham**—We have applied those principles within the constraints of the system which currently operates, which does not leave us a huge amount of room, but within what we can do and within what a private company such as us can afford, and we subsidise this to a significant degree, we have achieved something that is unique.

**Mr JENKINS**—Even with your subsidy, is there still a premium on the housing lot? Is this above average market elsewhere?

**Mr M. Hickinbotham**—Yes. For entry level housing, which we try and keep affordable, it is far superior to anything that could be achieved.

**CHAIR**—Is it 15 to 20 per cent, Michael?

**Mr M. Hickinbotham**—It is very hard to compare because there is nothing else in that area.

**CHAIR**—Because you do the housing as well.

**Mr M. Hickinbotham**—We are unique. We do the land and the house building. In that area there are other private developers but it is fair to say that in the last 30 years we are the only private developer who has been successful in creating a cohesive, successful and now financially viable community. The other developments out there have traditionally been very unsuccessful.

**Mr McARTHUR**—What is the word in the pubs and clubs and along the streets about why they have come to your development? When potential buyers come, what do they say? Why would they going to Andrews Farm and not somewhere else?

**Mr M. Hickinbotham**—I think it is the spirit. There is a school there.

**Mr A. Hickinbotham**—It is a feeling of belonging, of identifying with somebody, and they now have their football team started.

**Mr McARTHUR**—Are you the coach or patron?

**Mr A. Hickinbotham**—We presented the guernseys.

**CHAIR**—There is a sense of place around them.

**Mr A. Hickinbotham**—Yes.

**Mr M. Hickinbotham**—It is an attractive living environment. There is a spirit, as well, of independence. The government is not doing anything for them that they cannot do for themselves.

**CHAIR**—Your experience is one of a lighter touch regulatory framework.

**Mr M. Hickinbotham**—Yes.

**CHAIR**—What about at a federal level? Is there anything constructive or helpful? If we accept that this is a good outcome, what is needed or necessary to bring about similar good outcomes elsewhere? Most of the issues that we are confronted with reflect the consequence at the other end of the spectrum.

**Mr A. Hickinbotham**—I think you let people who want to have a go, have a go. If they do not want to have a go, push them to one side. They will work out their own solutions.

**CHAIR**—Do we showcase these kinds of examples so others can say, 'Well, if it works at Andrews Farm, why can't it work somewhere else?'

**Mr A. Hickinbotham**—If Adelaide wants to expand on the Adelaide Plains, there are thousands of acres of identical land available on the Adelaide Plains. There are plenty of small towns which are doing very well and there are all sorts of things they could do, as Professor Woolhouse was at some pains to explain.

**Mr McARTHUR**—Where do these people work?

**Mr A. Hickinbotham**—A lot of them work in their own vegetable gardens. A lot of them work in Salisbury and a lot of them work in Elizabeth.

**Mr McARTHUR**—Do they get there by public transport or road?

**Mr A. Hickinbotham**—There is a good public transport system and there is a rail system. A lot of them go to the Barossa Valley now. The Barossa Valley is desperate for houses in the wine areas.

**Mr McARTHUR**—How far away is Barossa Valley?

**Mr A. Hickinbotham**—Twenty miles.

**CHAIR**—You could commute the other way.

**Mr A. Hickinbotham**—Yes.

**Mr McARTHUR**—You have created this community spirit and this historic village in a bigger scale. Is that right?

**Mr M. Hickinbotham**—We have tried to, within the constraints of the current system that operates. We have tried to employ those principles. It is not the ultimate expression. The ultimate expression is more in line with something like a series of genuine villages interspersed with agriculture, reclaiming and reusing waste water. We wanted to build the very reclamation plant that we have tabbed in this magazine. You can see a photo of it. We wanted to build one of those plants at Andrews Farm. We were willing to invest in that and pipe the waste water into the plant, purify, filter and have reclaimed water going back into the homes. Eighty-five per cent of the water used in the average home is for non-potable purposes. The extra water would be injected into the aquifer.

The water utility at the time, E&WS, said, 'In case this doesn't work, we want you to build the rising mains, the pump stations, all of the infrastructure that would be required to pump the waste water all the way to Bolivar,' which was a long way away.

**Mr A. Hickinbotham**—The E&WS do very nicely selling the Murray to Adelaide people.

**Mr M. Hickinbotham**—They knew what they were doing. They priced us out of the ability to provide that infrastructure. As Alan has just mentioned, they get water from the Murray for nothing; they spend 20c treating it and they sell it to home owners for $1 a kilolitre. They do not really want the competition. They might say they do. I think they are more progressive now but at the time they were quite protective of their bailiwick, so we were not able to do that aspect of it. What we did was the CSIRO injection trials. We developed national standards for what they call aquifer storage and recovery. We used the wetlands to full effect. Now there are lots of places throughout Australia doing ASR and that is a positive thing. It all grew out of Andrews Farm.

We would like to do these nodal villages. Unfortunately, with the government selling land and maximising the price, and other developers bidding up the value of that land, it means they want to see it cut up into smaller and smaller allotments with larger and larger houses on them. It is completely the opposite of what we would advocate.

**Mr A. Hickinbotham**—We would be wrong if we did not tell you that we bought most of this land for $1,000 an acre. It is now worth how much?

**Mr M. Hickinbotham**—I do not know.

**Mr McARTHUR**—You make that point in your submission. You start early, don't you? Didn't you say that? You start 20 years ahead to get ready.

**Mr A. Hickinbotham**—And it was a struggle. It was a real struggle, I can tell you.

**Mr McARTHUR**—How do you think you have done on this whole sustainability? You talk about giving water back to the aquifer. What about energy and waste?

**Mr M. Hickinbotham**—Mr Chair, you asked before what the government could do to facilitate this sort of thing. We believe in incentives. It is important that people are given an incentive to invest into this type of infrastructure. It makes a lot of sense, whether it is tax incentives or other sort of incentives. The carrot is always a better motivator than the stick. What you get with the stick is if these things start to become mandatory, with energy ratings and all sorts of other things, it tends to be a lowest common denominator approach and it tends to be an approach that has been designed by bureaucrats, rather than someone who is actually on the ground making it work in a way that satisfies the commercial realities of the situation. What we say is that overall an incentive approach is better than a coercive approach. That applies to energy efficient housing. It applies to developers who are willing to invest in this sort of infrastructure that is needed to conserve our water resources, and a whole range of issues.

**CHAIR**—How far out does the containment boundary apply? In the city I am from we have this boundary but if you go a fair old hike away from the boundary its relevance becomes less. Is

that a similar circumstance to yours? You mentioned the Barossa Valley. If you headed 10 kilometres out from here, is the reach of the urban containment boundary still in play there?

**Mr M. Hickinbotham**—That is a good question. The boundary actually abuts Andrews Farm. There is very little land within the boundary, when you compare it to Melbourne. What that has done is driven the price of land up. We have recently made submissions to the Productivity Council on affordable housing. In a way it affects the sort of issues that you are looking at. I know it complicates the whole matter but that boundary has made land and housing a lot less affordable for South Australians. It is trading away one of our competitive advantages in high-quality, affordable housing. The boundary abuts Andrews Farm and goes along Curtis Road and jumps out here and there. Within that boundary the government controls most of the land.

**CHAIR**—But if you wanted to do this in the Barossa—

**Mr M. Hickinbotham**—They are putting a boundary around the Barossa as well. All the townships that surround Adelaide—Victor Harbor, Kapunda, the Barossa, Greenock, Gawler, Goolwa—have boundaries around them.

**Mr A. Hickinbotham**—If they were going to move a boundary they would be more likely to do it from Nuriootpa than from Adelaide.

**Mr M. Hickinbotham**—I am not sure. That is already zoned residential.

**Mr McARTHUR**—Could you just expand on that argument. You are saying in South Australia they have already put a ring around all these smaller regional centres.

**Mr M. Hickinbotham**—Yes.

**Mr McARTHUR**—You cannot develop them as well, apart from the metropolitan area.

**Mr M. Hickinbotham**—That is right. Apart from the land that is zoned residential within the boundary, you cannot develop.

**Mr McARTHUR**—What is the rationale by the government for that policy position?

**Mr M. Hickinbotham**—There is an aversion to urban sprawl in its current form, which in a sense the government created. They believe that they do not have the funds to invest in infrastructure which growth creates.

In areas like the Barossa—and it is a totally valid argument—the character of those areas needs to be retained, but we would like to think that a balance can be achieved between retaining the character of these areas—which is beautiful—and growing in a sustainable and responsible way.

**Mr A. Hickinbotham**—They have not come around to understand yet that places like Kapunda, Nuriootpa, Tanunda and so on, if they are going to have a decent effluent scheme, must have some decent sized subdivisions where you can bring out some economies.

**Mr McARTHUR**—If the private sector is going to invest in this infrastructure to save the government, they must have some economies of scale.

**Mr M. Hickinbotham**—Exactly.

**Mr A. Hickinbotham**—That is my opinion. We would gladly do it. There is land out of Nuriootpa and Victor Harbor that we are negotiating for.

**Mr JENKINS**—How many lots do you think is a critical mass?

**Mr M. Hickinbotham**—We are still doing the numbers on that. For the reclamation plant, the water plant and the infrastructure needed to send the water back into the homes, it would be around 1,000 homes. It might be less than that; it depends on the situation and the class of water that has to be treated.

**Mr A. Hickinbotham**—The people who control that aspect of development are not free and easy with the information they let out.

**Mr M. Hickinbotham**—It also depends on the degree to which the council requires STEDS—Septic Tank Effluent Disposal Scheme—levies and other charges that they have for traditional development. The system with septic tanks and oxidation ponds often requires an augmentation charge, so there are quite a few things that come into play. Even if we have to subsidise it ourselves, we are very keen to build one of these plants to show what can be achieved in a subdivision. It might be that it does not stack up, that we need to fund it to a degree, but I think it would show people that there is a better way forward.

**Mr McARTHUR**—Are you really trying to build a subdivision with the water, sewerage, waste, energy type—

**Mr A. Hickinbotham**—Self-sufficient.

**Mr McARTHUR**—You have the classical objectives that this committee is looking at.

**Mr A. Hickinbotham**—Yes.

**Mr McARTHUR**—We have seen some areas where the planners and the experts would not allow the operators to do that; they had tremendous difficulty in overcoming the objections. Is that what you are saying to us: you cannot get past the conventional planning, big-time waste collectors, water providers?

**Mr M. Hickinbotham**—That is part of it.

**Mr A. Hickinbotham**—If the government town planners do not get you, the council does. If the council does not get you, the government does. Someone will get you!

**Mr McARTHUR**—If they fail, the federal government will get you.

**Mr JENKINS**—Flicking through the book, I thought the anecdote about how you had gone through everything with Andrews Farm and then the postmaster came up and said, 'The name can't be going because there's another place called Andrews.'

**Mr A. Hickinbotham**—That is true.

**Mr JENKINS**—There are plenty of hurdles. We had a group from Urban Ecology Australia before us this morning. They were talking about doing these sorts of things as an example; we should not be trying to solve all the problems overnight, but at least putting in place examples that are akin to what you are suggesting here to show what can be achieved, and to then get that attitude and change at all levels. Based on what you have done at Andrews Farm and the other places, you are giving the impression that that change has been slow in the eyes of others who should be making judgments and assessments.

**Mr A. Hickinbotham**—'Slow' would be the understatement of the century. The whole thing is changing; it is changing every day. People have different ideas about effluent and they are expanding their knowledge. They are getting to understand it. By the time you get to that point, well, you should be at that point over there. Dare I say it—and I cannot say it in a kindly way—bureaucrats are not good at keeping up with what the public want.

**Mr JENKINS**—On the spectrum of intervention on this committee at the moment—the three representatives—I am probably the capital 'I' interventionist. I am attracted to the notion that you have put to us today about the past, especially in what we now call town planning considerations when they were not in vogue, when we had this sort of mixed use—that is my terminology. That is one of the things that attracts me. We have to get into new developments where it is not just housing stock; it is all those things that make up a community—why can't the jazz bar be on this lot and then a few more houses and apartments? It begs the question.

Now we have controls in other ways. We do not have noxious industries any more because we have managed to control them, so the town planning imperative about the use of the dirt may not be as important. Is it worth championing the lateral thinking that says, 'All right, this is going to be a community and we will allow uses that are to do with the community'? That might be the wine bar, the panel beating shop, the houses, the office below a residence, and things like that. Is that what you are saying?

**Mr M. Hickinbotham**—That is absolutely correct: regulation with a permissive stance, an idea that you can do whatever you want, providing you are not harming or hurting someone else—and, as you say, mix it all up. Give people the right to do pretty well what they want to do, providing they do not harm others. What have the planners given us? They gave us Elizabeth, Canberra—there are some very good things about Canberra, but there are some bad things as well. The idea is that you mix it up and you have people living in a cohesive community where everyone is involved. You do not get that by putting all the light industry here, all the shops here, all the people here, and then everyone travels by car. You try and inject some street life.

**Mr McARTHUR**—What do you say about the disco club and pub in the middle of the urban area—that sort of example? Do you think the market will sort that out?

**Mr M. Hickinbotham**—You would have light regulation. There are ways of dealing with that.

**Mr McARTHUR**—If a disco proprietor wants to keep in touch with his local community, he does not annoy them by having his band play at three o'clock in the morning. He becomes better mannered.

**Mr M. Hickinbotham**—I think we have been very heavy-handed in the way we have regulated our society. As an example—it is not necessarily on point—we have a block of land on an arterial road, close to the centre of Adelaide. We proposed a really innovative, high-density development, and it was a few car parks short. The council said, 'You can't do anything with it. We're not going to approve it.' I said, 'Well, if you don't have the car parks, you don't have the cars.' This is very close to the city. People walk to town if they do not have cars, or they ride a bike, or they catch public transport. They are good things, and this is the best thinking that is coming from Europe and America. As it is, the site is frozen; people are prevented from living close to the city; development has been prevented; an increase in the stock of housing has been prevented and this increases the cost.

**Mr McARTHUR**—What was their response to your observations?

**Mr M. Hickinbotham**—They hide behind the development plan—'We're sorry, there's nothing we can do about it. That's the development plan.'

**CHAIR**—There was an example in Brisbane—Kelvin Grove. The state government was involved in that. They made a virtue of having a less than, according to Hoyle, car parking provision.

**Mr M. Hickinbotham**—We do not have enough car parks for our office but people catch public transport and they ride bikes. If there are no parks there, you have to do that. It is just about being a little more free and easy. I think that is a big part of it.

**Mr A. Hickinbotham**—Letting people find their own solutions. As it is now, people think that the bureaucracy is going to find their solutions for them. They do not feel that they have to find a solution; they do not feel as if they have to behave.

**Mr M. Hickinbotham**—They are requiring us to act in a particular way that is making it impossible for us to find our own solutions.

**Mr McARTHUR**—You fellows are pioneers in this field, and we have heard a lot of witnesses. Do you think you will still be around in 25 years, having been out in front and trying to overcome all these problems?

**Mr A. Hickinbotham**—I will not be here.

**Mr McARTHUR**—I reckon he will still be here. It is a worry.

**Mr M. Hickinbotham**—I think the growth boundary is going to make it very difficult for us to develop in the traditional way and style and, if that starts to gain a foothold in other cities—it

is now in Melbourne; I think it is in Sydney; it is in Adelaide; they are talking about Brisbane and Perth as well—there will not be a role for our traditional style of development or construction. That is sad, I think.

**Mr McARTHUR**—What would you use your energies on next to explore these sorts of philosophies and ideas, having come so far down the track?

**Mr M. Hickinbotham**—I am not sure that we will have an avenue. It becomes very difficult to fight the bureaucracy every step of the way in order to do things that are eminently sensible.

**Mr A. Hickinbotham**—Having said that, you will still be looking for things to do, no doubt.

**Mr McARTHUR**—What if this committee came up with some recommendations that generally support the sorts of things you are doing: there was a sea change by planners and bureaucrats, that energy, waste water, all those arguments are worth looking at? That is evidence I have heard, that this was a really interesting area. Surely you will have a place in the sun?

**Mr M. Hickinbotham**—That would be a wonderful thing. It is a great thing that your committee is doing.

**Mr McARTHUR**—There are not many of you out there to help us. That is the problem.

**CHAIR**—There was a submission put to us that there is a core separation of powers issue here, in that once the policy has been articulated by government, whether it be a council or a state government, what goes or does not go should be left to a commission or technical experts that say it is meeting the objectives of sustainable land use, preservation of vegetation value, the soft footprint and so on. Great; go for it.

**Mr A. Hickinbotham**—That is probably the worst thing of the lot.

**CHAIR**—That is right. They were arguing—that was in your same industry.

**Mr A. Hickinbotham**—If you get to a position where the crackpots give up, that is when you are in trouble.

**CHAIR**—There would be no hope for the tigers then, would there?

**Mr M. Hickinbotham**—What you say is right. Someone was saying the way our schools and our universities are, we are homogenising society. You do not get the characters, you do not get the pioneers, you do not get the people who want to get out there and have a go. We are willing to spend our own money and have a go.

**CHAIR**—Swinburne University did some work on entrepreneurship. They took engineering, science and IT undergraduates. At the start of the course 85 per cent, I think it was, aspired to be entrepreneurial, develop their own products, run their own businesses, be creative. By the time they had finished studying, it was down to about 15 per cent. All that sparkle in their eye and fire in their belly had been knocked out of them during their academic pathway and they all came out

wanting to work for major companies where someone else carried the risk. It just snuffed out all that creativity and enthusiasm.

**Mr M. Hickinbotham**—Can I mention one more point, Mr Chair? It is an aside, really, but I think it underlines what we are saying. About 12 or 13 years ago, when Alan first conceived of this idea and tried to get it going at Andrews Farm—we called it the Munno Para Ark—at the same time the MFP was in full flight. They saw what we were doing—a private company spending its own money to do truly innovative urban development—as a threat. They made our lives very difficult.

As it turned out, they spent $150 million and the state ended up with absolutely nothing for its money. There was nothing innovative about what they proposed or what we have ended up with. It is just another development. The whole thing was a farce, but through their political chicanery and their connections and working closely with ministers and governments and what have you, they did make our life very difficult.

**Mr A. Hickinbotham**—Are you naming the housing estate?

**Mr M. Hickinbotham**—No. I think you can probably guess which one it is.

**CHAIR**—Something we keep trying to work out is how to make sustainability sexy. That is such a key goal, so consumers are seeking it not needing to be persuaded, so that your colleagues are aspiring to it, not being obliged to do it, and so that the market is actually saying, 'Give me some of this stuff because it's wholesome, it's more cost effective in the longer term. We know about the life cycle and everything—except, you know, we'll save 1,000 bucks building a $3,500 a square house that will cost us a mint to run for the rest of our lives.' There are all these kinds of things. It was good of you both to come. Alan, I hope it was not too bad, seeing you were conscripted by the sound of things.

**Mr McARTHUR**—Could I just add my thanks to our two witnesses for a very interesting presentation. We congratulate you on your innovative, thoughtful attempt to change the world.

[2.18 p.m.]

**NESS, Dr David Angus, (Private capacity)**

**CHAIR**—Welcome. Is there anything you would like to say about the capacity in which you appear?

**Dr Ness**—I do work for the state government, but I am appearing in a private capacity.

**CHAIR**—Dr Ness, although the committee does not require you to give evidence under oath, I should advise you these proceedings are formal proceedings in the parliament and as such warrant the same respect as proceedings in the House itself. It is customary to remind you that giving false or misleading information is a serious matter and may be regarded as contempt of parliament. On that really upbeat, welcoming note, do you have any opening comments you would like to make?

**Dr Ness**—Yes, thank you. Maybe I should just give a brief background about myself. I am qualified as an architect and as an urban planner. I received my doctorate a couple of years ago in the urban planning and building field. I work in the facilities and asset management area of government, so I am interested in facilities management. That will come out further on in managing the stock of buildings in cities. I lecture at the University of South Australia on asset and facilities management.

My main message is about making the most use of existing resources and about circular processes. In the past we have had linear processes where resources are extracted, they are put into use and then they go to waste. The fundamental concept is about keeping resources in loops so they go round and round. By doing that, you need much less in the way of new resources. Also, you substantially reduce waste and energy.

**CHAIR**—An advocate of the Dutch system, are you? That is a system where buildings and facilities not utilised attract a punitive tax by the Dutch government. If you have, for instance, a factory that you are camping on hoping for some opportunity, you have to put it to some use, otherwise there is a penalty that applies. You find a lot of factories that end up becoming student accommodation and all sorts of multiuse and flexible internal fit-outs to try and maintain some occupation of it.

**Dr Ness**—That is great. I did not know about that, but that is interesting. I am an advocate for converting existing buildings. In the property industry everyone thinks, 'We must have new buildings,' but when you add new buildings you have more stock to manage. Quite often the older stock is not disposed of, so it becomes like an albatross. That is probably my main message. I have for a long time had that personal philosophy, but I made contact with a colleague from Interface, just by chance, and I discovered that Interface were doing similar things to my thinking in the manufacturing area, with their modular carpets and the ideas of product stewardship.

**CHAIR**—Leasing for function rather than owning the asset?

**Dr Ness**—Exactly. I am not sure whether Interface practise it widely in Australia. They are pioneering it in America—the theory is that they lease the carpet and when a firm has finished with the carpet, then Interface take it back.

**CHAIR**—Plus they maintain it. Amory Lovins was in Australia a few times spruiking quite widely.

**Dr Ness**—I became aware of what Interface were doing and I was very interested in that, particularly the idea of the leasing. Then I discovered that, in Australia, Fuji Xerox practise the same philosophy. They have an ecomanufacturing centre. I think it is at Zetland, near Sydney. I have never been there but I have read about it. I think there is some information about that on the Department of the Environment and Heritage web site. I discovered they were doing work in those areas. Then I have tried, with my colleague from Interface and others, to extend those principles to buildings.

**CHAIR**—What have you found?

**Dr Ness**—I have found that there are some parts of buildings that are subject to rapid change, like office accommodation, where you can use the same principles and the theory is—we are testing it but we do not have the answer yet—that you can lease maybe all the components of an office. So you could have a company wanting office accommodation and they may not need to own any of their facilities. They just lease the whole lot or components. As I say, it has not been tested. We started to do some research. We have an application for an ARC grant. We should hear soon about that. We are interested in the benefits of this because the benefits could be that there is no big capital cost. You lease instead.

**CHAIR**—It is an expense too, so you can write it off on tax.

**Dr Ness**—There could be some tax benefits. Also the producer maintains the equipment or facilities. For example, in my office our colour printer broke down. It was out of action for about two months because we own it. If you lease it and if the company do not come and fix it promptly, you just will not pay the lease, so there could be some benefits there. I was talking about the parts of buildings that change rapidly, and this kind of theory could have application—the take-back idea, the leasing—in transportable buildings and industrial buildings.

**CHAIR**—What about your long life, loose fit, robust buildings? Is that about a structurally more rigorous piece that has adaptability inside the walls?

**Dr Ness**—Yes. There would be some parts of buildings that you cannot take back or reconfigure—maybe footings, if you had footings in the ground; those kinds of things—but there are a lot of other parts where you could. You may not be able to take it back because some parts of buildings would be in place for many years, but even with those you can design them so that they can be readily changed, so it is designing buildings with the life cycle in mind so that they are designed for change over their life. An example of that is in the South Australian government, where there is a Schools to Houses program.

They designed a school—this was done about 10 years ago—for the north of Adelaide, because it was a growing population and at that time there was a demand for a school. As the

population grows up, the demand for the school goes away. Cleverly—it was leading edge—they gave some thought to the future. What was going to happen to the school after it finished being a school? They designed it to be converted to houses. I think that has happened and they are looking at others. By doing that it does not take much to make some changes to a facility. You do not have to go and get a whole lot of new resources. You do not throw out the old buildings to waste. You can keep them circulating around. You need some adjustments, but that kind of thinking—

**CHAIR**—So to bring about that kind of transformation—in thinking as much as anything, because the technology is there and alive and being practised in bits and pieces—are you suggesting that something like the Building Control Act requires longer-run functional flexibility as a characteristic for assessment? How would you operationalise your idea, bearing in mind that the first owner, second owner or third owner of a building may have a particular purpose and time in mind?

**Dr Ness**—I have not given much thought to the regulation of it, but I am aware that in some jurisdictions when a developer wants to submit a plan for a building they have to submit a disposal plan—what they are going to do with it after its life. That is starting to get the thinking going. I have lost my train of thought. Could you repeat that last bit?

**CHAIR**—How do you make sure that the first, second and third owners had the longer-run useability of the building in mind?

**Dr Ness**—For one owner, if it can be shown that it can be cost effective to design it for change—Fuji Xerox, at their operation in Sydney, have made ecomanufacturing cost effective, where they have taken back the parts and they were able to reconfigure them and the same parts go out again—and if it can be demonstrated to organisations, particularly organisations with large numbers of assets like governments and universities, that it is cost effective, then I think it boils down—and, as I said, I have an interest in asset and facilities management.

It is about better management of building stock and asset management, facilities management. For example, in Melbourne I believe the Eureka Tower—which started off as the Grollo Tower—was proposed, and I think it is being built. That was at a time—the Grollo Tower anyway, as office accommodation—of very high vacancies in existing building stock in the city. About 30 per cent of the building stock was empty. At the same time you have an organisation putting up this new building which consumes resources. That has a lot of other effects. It makes the existing building stock worse.

What I am saying is, if you look at the building stock as a resource, if you can achieve the same objectives by modifying the existing building stock and it is cost effective, that is where we need to get to. Rather than building new, you might be able to reconfigure some of the existing buildings; some may not be able to be reconfigured. There are examples in Adelaide of office buildings which have been vacant for a number of years being converted for another use.

**Mr McARTHUR**—What would you say about the New York situation where the renewal of office blocks is an ongoing activity, as we read from afar? That would be an extreme example of pulling down reasonably effective buildings and putting up yet another high-rise office block.

**Dr Ness**—Yes.

**Mr McARTHUR**—What is your view on the way in which they have upgraded their office buildings and city structures? Philosophically, do you think they have been wasting resources?

**Dr Ness**—Certainly. I have read that in Japan the office buildings there are knocked down after 15 years or less. That is driven by economic reasons and land values.

**CHAIR**—High rent, too.

**Dr Ness**—High rents, yes.

**CHAIR**—You get an economic return at that point and build some specific purpose buildings. That is what I was alluding to in my question that Stewart has picked up on. If you have a building for a specific purpose in the commercial world and you want to refit it, the commercial people say, 'Knock yourself out. Go for it.' There is not a huge incentive.

**Mr McARTHUR**—That is the ultimate argument, surely. New York is the ultimate argument, where you just knock it down and start again; you have a new building. They have done their figures. The commercial guys say, 'We're in front over time.' What is your response to that?

**Dr Ness**—They are probably not paying the full cost of the waste—for example, the dumping; the greenhouse costs and carbon taxes when they come in. I heard a talk recently about the effect of Kyoto when it comes in and the carbon taxes. There will be a big impact on that sort of practice.

**Mr McARTHUR**—The calculation is not there yet, is it?

**Dr Ness**—It is not there yet. In narrow financial terms, it may be worthwhile for the property industry, but when the full costs of the waste and carbon taxes come in, then it should change the equation.

**CHAIR**—Even if you put those on and it added, say, 15 per cent as a cost penalty, the 15 years might become 17 years and you are right back where you started. It is an arithmetic issue as much as anything, where there is a profitable yield from a 15- to 17-year life building because the rents are so high and they can get their seven or eight per cent and do a runner and start all over again.

**Dr Ness**—Yes.

**CHAIR**—In the race to be the best office complex in Lower Manhattan, they are knocking them over.

**Dr Ness**—If you can anticipate change, then it may be more economical for the industry. You are going to need some change, but the basic structure of the building may enable change; whereas some buildings do not enable change and you have to knock them down. If you can design it so that it can be taken down—they call this deconstruction; design for disassembly—and the parts put together again in a different configuration, in theory, that is a bit like what Fuji

Xerox and people are doing. It may come to what you were saying, Bruce, about the need for regulation.

**CHAIR**—I was alluding to what Stewart was saying as well: arguably, the tax system and things of that kind should be—as they are now—supportive of the kinds of things you are talking about, yet it seems very hard to get the outcome you are talking about. What would be new, what would be different, to get that change of behaviour?

**Dr Ness**—Can I put forward a theory that I came up with as part of my PhD thesis?

**CHAIR**—Certainly, Doctor.

**Dr Ness**—In some parts of the world—for example, San Francisco—they auction development rights, the theory of development rights, so that where there is no need for new buildings they will not auction more rights; when there is a need, they will auction some. There is some regulation of the total supply of the office stock.

**CHAIR**—There is also a trade, too, where you get the Transcontinental building which is too high because someone has traded a development right in an area where they said, 'No, we want to keep the heritage buildings, but those extra 20 floors you can chuck up the top there.'

**Dr Ness**—That is right. There are transferable, tradable development rights. I looked at that theory in my thesis. That theory is even being applied to water rights; the River Murray is being looked at. I looked at whether there could be transferable property rights for what I am talking about and came up with a proposal so that someone would look at the total office space in a city, someone would look at the total demand, and there would be some regulation of the property industry. The property industry would not go overboard like it does sometimes in booms and busts, and there would be some restraint and regulation on oversupply. We are talking about oversupply, which is overconsumption.

In Adelaide, which I am more familiar with, we are still suffering the effects of the property boom from the seventies. There are buildings which are still empty after 10 years. One of them is the former tax office building. There is a cost with all of that, which is not taken into account—a community cost.

**Mr McARTHUR**—How is that evident—the community cost and not taking it into account? Where can you see that? Where is it demonstrated?

**Dr Ness**—The building being empty has costs for the city. For example, the tax office building is looking a bit better these days, but until recently it was boarded up; there was vandalism around it; it was really looking scungy.

**CHAIR**—Adelaide's preferred squat.

**Dr Ness**—Yes. There is a cost there. The property developer will only be interested in making a profit and will not be concerned with that. It also affects the image of Adelaide in economic terms. Word gets around that Adelaide has a lot of empty office space and it is really run down,

and it affects the image of the city for tourism, marketing and business. It is very important to have maximum usage of the existing space and not leave it empty for 10 years.

**Mr McARTHUR**—I would like to move onto the waste argument that you raise in your submission. You talk about the sustainable city having to be able to handle its domestic and commercial waste. Would you like to give us your view on what will happen if that is not done in an efficient manner?

**Dr Ness**—In the submission I was mainly talking about the waste from manufacturing. I was alluding to the interface, for example; they have waste. The interesting thing is that their waste does not all go to the dump—some of it goes to other companies. Also some of the raw materials for their products come from the bitumen and chemical industry. Rather than getting new raw materials, the way that interface would work is that raw materials would come from other waste from another company—they would use that. They churn out waste themselves but it is not really waste going to a dump; it is waste that goes to other companies. So that is the idea of a cluster of industries. This has happened in Denmark—I cannot remember the name of the place—and they use the words 'industrial ecology'. It is like mimicking natural processes—things go round and round. I have a paper which shows some diagrams of this, and I can table that afterwards. That is the key idea, Stewart: the waste from one company goes to another.

**Mr JENKINS**—How do we encourage that sort of clustering? At the moment there are examples in government redevelopments where, for instance, in a former Army barracks they ripped up the concrete and crushed it, and then used it on site for the building that was to be put in place. It is internalised on site. You are acknowledging that there are not always these opportunities to do that on the one site—that there needs to be some sort of market created for the material. How do we make sure that those markets come about?

**Dr Ness**—There need to be some pilot developments done on these lines, like the Danish example. The idea is about minimising the use of energy. When you crush concrete and reuse it, that uses a lot of energy, but if you are able to have the concrete in panel form perhaps, where you can take it from one building in its panel form, you do not need to pull it apart and crush it. If you can take the component and not have to do too much to it, that reduces energy, and if the companies are close together, then that reduces the transport energy. There are examples of that. As I say, it is known as industrial ecology.

**Mr JENKINS**—If I was to go and visit the Hallett Cove Primary School, would I notice anything different about the way it is as a primary school? What were the design features?

**Dr Ness**—It is a primary school, so it is domestic scale anyway. There would not be two-storey buildings, because they are converted to houses. You probably would not notice much difference. You may have to make some compromises as a school. I have not delved into this deeply but I understand that this is the theory, and it has happened at some schools.

**Mr JENKINS**—It must go beyond just the form of the building. It must be the way they footprint on the site and things like that, which would enable it to be broken down into housing.

**Dr Ness**—Yes, you are right. A classroom might be made up of two parts which can be subdivided later with a wall down the middle and a house each side, or something like that.

**CHAIR**—We talked with the Property Council about a range of things. The idea of life cycle costings for commercial buildings is not anything particularly new that one would take into account—not only the lease, but outgoings, utility costs and those kinds of things—but it seems to be a discipline that has not emerged to any great degree in the residential sector. Do you see that changing? When people are making choices about building form, construction, orientation, solar passivity and ecoefficiency matters relating to residential homes, will they get past the initial signing of the contract for a house and land package and think, 'Well, hang on, I'm actually signing up to a utility cost that's 20 per cent more than if I spend an extra 500 bucks getting it properly insulated'? Why has that literacy that is in the commercial sector hardly reared its head at all in the residential sector?

**Dr Ness**—That is a good point. I have not had much experience with the residential sector. Maybe people need to be given the option when they purchase a house, say, with Hickinbotham—and maybe Hickinbotham do this. They could be told, 'You can have this option where it will be a low initial cost, but if you're going to live in the house for 20 years, it's going to have a high life cycle cost.' And there could be another choice presented to them: 'Okay, that's one choice you have. The other choice is that you could have a higher initial cost but over the time that you're there in the house the overall costs are going to be much less in terms of the renewable energy and solar.' It will cost a bit initially. I heard the word 'incentive' mentioned by Hickinbotham. There could be some incentives for people to make that switch in their mind-set, and maybe to minimise the initial cost.

**CHAIR**—With public housing stock, for instance, you would think there would be a great opportunity for construction and housing innovation where the longer run cost of operating and managing that asset is of some importance both to the tenants, who by definition are low income, and to the taxpayers, who by definition are the landlords.

**Dr Ness**—I am not sure what is happening there, but landlords like the Housing Trust, in particular, who are responsible for an asset over its life are not going to walk away from it.

**CHAIR**—Defence Housing Authority and entities like that?

**Dr Ness**—Yes, I think all of those. Can I mention another point in closing?

**CHAIR**—Yes.

**Dr Ness**—I am interested in exploring the leasing idea. I wonder whether the Commonwealth government, with their procurement policies, would maybe look at having contracts where the lessor becomes responsible for the maintenance and taking things back. This could be for things like solar panels and so on for government buildings, or it could be a company that manufactures solar panels. They lease them to the government and maintain them, and then at the end of their life or when a new version comes on stream they can replace it.

**CHAIR**—We certainly acknowledge your point and will check that through. I am mindful of the fact that, if the government owns it, it looks like an asset on the balance sheet, but under the public accounts reporting arrangements long-term leases appear as a liability and are factored into your debt, which is another issue in its own right if it is an operating lease that is an acquisition by default. It is a good point and we have noted that in your submission. One of the

things we are looking at is what behaviour the federal government could provide to give leadership and guidance to others, so in that context it is a good suggestion.

**Dr Ness**—I have something to leave with you. It is a paper that I had published by the CSIRO. It has some diagrams which might help to explain things better.

**CHAIR**—It is resolved by the committee that Dr Ness's paper be taken as evidence. Thank you for appearing before the committee today, Dr Ness.

Resolved (on motion by **Mr Jenkins**, seconded by **Mr McArthur**):

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

**Committee adjourned at 2.54 p.m.**