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**HOUSE OF  
REPRESENTATIVES**

STANDING COMMITTEE ON ENVIRONMENT AND HERITAGE

**Reference: Sustainable cities**

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SYDNEY

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**HOUSE OF REPRESENTATIVES**  
**STANDING COMMITTEE ON ENVIRONMENT AND HERITAGE**

**Tuesday, 8 June 2004**

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

**Members in attendance:** Mr Billson, Ms George, Mr Jenkins, Hon. Duncan Kerr 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.

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**Committee met at 11.05 a.m.****NOONAN, Mr Geoff, Principal, The Middle Way Pty Ltd**

**CHAIR**—I declare open this public hearing of the House of Representatives Standing Committee on Environment and Heritage. It is our inquiry into sustainable cities for 2025. This hearing is the 12th of the inquiry. We are very pleased to be holding this public hearing in the Powerhouse Museum. The Powerhouse is currently showing an exhibition on ecological settlements which looks at aspects of sustainable living, so it is very fitting we are here today to talk about sustainable cities. Members of the public are welcome to view the ecological settlements exhibition during the day.

I welcome our first witness, from Middle Way Pty Ltd. Although the committee does not require you to give evidence under oath, I should advise you that these proceedings are formal proceedings of the parliament, consequently they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as contempt of parliament. With that bright and cheery and warm welcome—and hopefully that has not caused you too much trauma—do you wish to make a brief statement in relation to your submission or some introductory remarks?

**Mr Noonan**—I would like to. Thank you for the invitation to make a presentation. I apologise for dropping an awfully complex paper on you—I reread it recently and frightened myself. It is a rather complex issue. I have been trying to wrestle with this notion of how you have a helicopter view of a simultaneous trade-off of the environment, social expectation and macroeconomic industrial expectation. All of them can rotate in priority at any given time, so all you end up with is arthritis because it is an awfully difficult thing to synthesise. But that is what urban planners of the future will have to face.

I could say I am an expert in ecological sustainability because I have seen all these advertisements for future retirement villages. They have smiling people, all of them have lovely white cashmere jumpers draped over their tennis rackets and they are walking down streets that look like the Champs Elysees and having cafe lattes. And I think, ‘This is a lovely futuristic city.’ The next generation of thinkers come along and say: ‘Yes, the city must consume no resources. They should be renewable. They should leave a very small footprint on the ecology. Waste will be recycled and reused.’ This, of course, is a laudable objective that we pursue. But I am afraid I am the little black cloud that comes across the sky, because you are not going to have those idealistic, futuristic cities.

It is most likely that future society—especially by 2025—is going to have to live with this sort of city, and it will be an accretion of changes, iteratively over time, that will keep the city functioning. You have billions and billions invested in the existing capital stock. You have billions in social infrastructure—people trained in certain skills—that makes the city tick. You are not going to put that in the bin and reinvent this perfect model. Unfortunately, you and I are going to do things in the year 2025 that are going to demand that the old smokestack industries not only survive but compete. We, according to ABARE, are still going to have a high reliance on fossil fuels. The renewables are not going to be around to cope with the base loads that industry needs for electricity, which means we are going to have electricity transmission, we are going to have gas pipelines and we are going to have coal mines. We will probably use

synthetics like plastics and we are going to have chemical factories to make them. So the next exercise was: 'Fine. We'd like our nice pleasant environment. Get those things away from us.' But guess what? The labour that works in those is not going to travel hundreds of kilometres to go to work each day.

The infrastructure that industry needs to be competitive, especially in global markets—because they will have to be globally competitive—needs that social technological infrastructure which you only find in cities. So the future urban planner is going to have to sit down, package up the social expectations that have become very strong for those sorts of things we have described, and work out how to fit them into the residual smokestack industries, whether they be mining, a small metal fabrication facility or a wind farm. It sounds silly describing wind farms as smokestack industries, but have a talk to the residents along the coast of southern Victoria who find the wind farms going up there to be a blight on their vista. So all the time there is going to be a tension between an industrial activity and the aspirations of a society and the need to protect the ecology, in particular the urban ecology, for the long term.

The paper says that is all fine, but we do not have the framework in place now. We do not have a policy framework, especially at the national level, that lets that conflict be managed. Because competition for the available useful bits of land increases, especially along the coast—we want shipping, we want industry close to export markets and we want people to see the sea and buy the land next to it—that tension is going to be stronger. We really do need a framework in place that lets us work out how to go. Currently it is left to state governments with subordinate councils putting their own laws into place. So a major industry sitting down to look at investing long-term big capital really is not sure how they cope with a 10-year investment horizon. We want them to cope with a 10-year strategy, because that is when they are going to invest in the high-quality technology and practices that will let them to be clean and socially sympathetic. So we go back: you have to have a framework in place that gives them the certainty and confidence to go to the international financial markets to bring in the money to put in place good things that are clean, productive, employment generating and safe for workers. But we do not have that. Every state and territory has either a court or a planning tribunal resolving day-to-day conflicts between councils and the community, councils and industrial developers, councils and state governments. They just have not got the process right for getting that balance.

The recommendations on the last page are focused on what I understand could be your role, and that is setting a national policy framework. It does not invite you to get into the squabbling statutory aspects. The states, who are strongly constitutional in this area, may tell the Commonwealth to take a running jump—not to stick your nose in their business. So be it. But I really do not think it would hurt the states and councils to have some broad policy guidance, and I know industry is screaming for it.

**CHAIR**—If I could characterise the central theme that comes through your paper, it is not only the importance of triple bottom line concepts and their application but the crucial need to have the governance structure to support the kind of possibility exploration that you talk about—the choices and trade-offs that are there and then the formation of decisions to be both more certain but sufficiently pliable to reward better proposals even if they do not neatly fit particular statutory planning guidelines. Do you see some working examples of that? We have been enlightened by the Port Macquarie experience, where an effort to replace the planning scheme went pear shaped and everyone stopped—well, they just shouted at each other and it was going



nowhere—and, in the end, the process became as important as the end product they were trying to develop. It was a chance for people to give expression to what they were hoping for, and there was a lot of common ground found between the various stakeholders, but they needed to do something different to actually tease that out.

**Mr Noonan**—Your description of my paper is something I will look forward to reading in *Hansard*. I can use that—you have describing it very well. There are models around the country. I really believe it can be addressed. I referenced in there the Newcastle circumstance because it is a classic, horrible model. We had a look at Gladstone as well, where they are also trying to bring in big productive heavy industry and capitalise on being a northern coastal township. There is a lot of potential there except that water supply is becoming a bit of problem. I am not seeing a lot of joy in the planning framework per se. I reference the current problems in the Victorian government that hit the press in the last week where they are really having to stand back and say, ‘Did we get it all wrong?’ I think that is possibly sitting below the surface in a couple of other states as well.

I am seeing that the strategic process has a lot of opportunities. People are starting to sit down and say: ‘What do we really want to get? We want to be a high value added producer in this area. What is the best competitive spot to do that? Well, it is there. It is near water and it is near a railway line and, yes, there is a university there, so that is the ideal spot. If they want to do that activity on that site, what do they need? They are going to be a bit noisy and a bit dirty. Let us quarantine an area around them. Let us make sure that trucks go in from that side, away from town, and that the train comes in from there. Yes, we can use that train line; let us put an extension through to the town.’ So they are taking the historical focus and putting it in the bin and going back to say: ‘What is the purpose? What do we really want in a strategic master plan?’ Then they are building back out, so they say: ‘Okay, they are our core economic drivers. How does urbanisation fit around that?’ That is as opposed to saying, ‘Let’s stick 10,000 houses there and see if industry wants to move in around them as well.’ That is where it falls down the drain.

**CHAIR**—It is almost as if the solution you are advocating has also been the cause of the problem. Town planning started out as a way of keeping really toxic things that can make you sick away from where you lived. We have now got to the point where we see the disaggregated aspects of people’s lives, so you live way over there and you have a megacommuter to go to work and if you have a cultural interest then there is another megacommuter. That whole mind-set, you are advocating, needs to be changed, yet I am not sensing this. People feel comfortable with the yucky stuff over there, dormitoryville with the McMansions over there and everything else you want to do on the end of a long drive. How do you see that transformation in thinking actually being brought into practice when so often town planning today is just about ticking the rule compliance box, and the kind of community that you would hope to create does not really get much of a look-in?

**Mr Noonan**—That paper is a download of all the problems I have faced over 15 years.

**CHAIR**—It seems quite cathartic.

**Mr Noonan**—Yes. I had a dictation machine with me, and it just flowed. I needed this to help my psyche, to get it all out. I have despaired at the circumstances. I have seen superb projects—\$200 million investments, 200 or 300 or 400 jobs, a high school, a train—fall over because one

person would not agree to being relocated or agree to a change and has gone to court and has argued a fine legal point in court. The company, two years after their initial proposal, have just walked away and gone to a more hostile spot, that was not as good for the environment et cetera. By the same token, I have seen scurrilous industry capitalise on weaknesses in the planning legislation and do some horrible things. I do not know if I mention this in the paper but the whole paper is premised on the fact that we are only talking about responsible industry with a responsibility for workers, a responsibility for social criteria and a responsibility for the environment. That is also a pipedream. We are going to have a mixture of spectrum all the way through.

But, to answer your question, if you told me that near our residence someone was going to put a quarry in five years time I would sell. I would be out the door so fast that there would be a dust stream down the street because, even if they said they were going to meet all of the ecological and social criteria that are on the table and that they would be good for the community, I would know there would be strife coming and it was going to be unpleasant for me in that development process and when they were there because there would be residual conflicts.

**Ms GEORGE**—I refer to the tension between resolving community concerns at the local level and the absence of a national framework. I take your point that the Commonwealth should have a greater role in looking at these broader macroissues of sustainability, but that would not necessarily resolve the kind of tensions that we see emerging at the local level. So how would you see the national policy framework obviating some of those conflicts?

**Mr Noonan**—A lot of national documents are somewhat platitudinous because they have to stay high, generalise and talk about international experience. My experience with responsible industry is that they really do want to know what the right thing to do is. When they walk into the door of the local regulator, they get the perceptions, or the microperceptions, of that agency, council or whatever it is. If they can walk in the door of that organisation with something behind them that says: 'Here is the broad playing field. Here is the responsible and appropriate thing, here are the pitfalls et cetera,' then they have a reasonable feel and they can sit and start the conversation from there. That is where I think it could be valuable. Surprisingly, there is not a lot of that literature around. It is seen to be the province of squabbling, and therefore people do not try to write on it.

Often as a consultant, when we sit down and talk to big business about where they should be five years out, we give them court cases where a judge has said, 'I think this is the right way to go.' It may be a little like fantasy land to say that, if the Commonwealth were to put together a policy framework that had a good fundamental strategy, over time you could work down to the microparts. The National Water Quality Management Strategy that the Commonwealth put together through the nineties started off as a pretty big conceptual thing, but 26 documents came out of that and then it stopped. Those documents are still referenced by people working in the field, because they can walk in to someone, put them on the table and say, 'Let's start from here.'

**Ms GEORGE**—We have seen a lot of urban fringe development and there is argument about whether or not industrial use ought to be integrated. I think you cite Newcastle as a reasonably good example of urban renewal going hand in hand with harmonising industrial growth. Do you have a philosophical view about the location of employment-generating concerns, in terms of some of those new patterns of development that we are seeing on the urban fringe? We have a

problem of commuting and the time that is taken there, the pollution and all the other negative environmental consequences. Yet if you start to integrate industrial plans with housing developments then you are likely to run into the kind of tension that we see about a lot of these things, such as with your quarry example.

**Mr Noonan**—I think it is a sunken problem. It is there—it has been produced over 30 years of town planning, and we are not going to correct it. I think we have created problems that are going to force these people to commute for two hours a day, which is quite standard in Sydney. You are not going to correct that overnight. All I could say is: sink it, forget it and look at what is ahead. If we have the capacity to rejuvenate and refurbish, or if we have an interest by a major industry sector to move into an area and they are happy to spend on that sort of social infrastructure investment, then we should work with them as to how they can do that in these areas. I think it does come back to that industry focus, rather than any other focus, because they are the ones with the capital. But if you said that a firm was interested in relocating to some of the outside urban areas, where lots of people are sitting and there are no work generation opportunities, then I would go back to my original statement: let us sit down, see what they want and see what they need. What is the power and infrastructure that is needed? Build it from there, and hit them to have a social consequence and do certain things for that community. I would build it up that way.

The Newcastle one is a lovely model for one reason. There is a place called Honeysuckle, a region where they are putting luxury apartments across the water. I mention it in the paper. Water is a superb transmitter for noise. If you go up two storeys and someone drops a spanner over on Kooragang Island, you hear it. They have not thought through the implications of having that massive, superb water perspective with big industry around. I do not know whether they are doing this, but there was talk about retrofitting all of the buildings with double glazing just so people could survive happily in the buildings with the windows closed, let alone having to get them airconditioned and all that sort of stuff. I would suggest it represents a classic failure of the system but it has the features of a massive opportunity for the future as well, because I know the sort of things that can be done there.

I do not know whether I have answered the question. The bottom line would be that I would focus on industry and making them do the right thing. One of the negotiations we had was when a mine was going to go into a regional area. We actually got \$5 million out of them to help build the social infrastructure of policing and health, because the 1,000 workers they were going to bring in would have just swamped the system. They were quite happy to outlay a \$5 million program for council.

**CHAIR**—I want to pick up on Jennie's point. You also introduce what seems in other industries to be an industry adjustment approach. You talk about a broader concept of compensation where amenity loss can be recognised but of itself it is not a game breaker. A developer may say: 'Yes, we acknowledge that there is some amenity loss. Here is a package of measures that seek to recognise that,' thereby facilitating the proposal or the investment that is not virtuous going forward.

**Mr Noonan**—It is what you said before, Mr Chairman: if the community owns that decision, they are happier with it; if it is dropped on them, they resent it. So you go through that right consultation agenda. You start back at the pre-planning phase with: 'We're thinking of doing

this, what do you think? Okay, it sounds good. We're going to do this, what do you want? We're going to do it this way, how do you think that will impact upon you? We'll change it. Now we are going to do it this way, we think that is the best fit. Are you happy? Yes.' They will wear an enormous lot; that is their project. The smarter industries take the local communities through during construction—people can meet the builders—and show them how the plans are going et cetera. They have monthly meetings with progress associations to show the time lines, the problems—they are open about the problems. I think all the tools are there to do it right. It is just that, as I said, it is a labyrinthine regulatory framework or a labyrinthine sort of management structure that most people cannot sit through.

**CHAIR**—We have tried to tease it out as a bit of a higher order governance issue; that the players, the decision makers, the institutions and agencies need a collaborative approach, rather than a judicial one where it is a yes or no, and they would say, 'Let's chew the fat on this a bit.'

**Mr KERR**—Mr Noonan, I want to ask you to explore these ideas of bringing in higher level policy. It seems to me that it is not so much with industrial use of land that higher level policy responses are required but in coastal planning and in areas where an individual local government, for perfectly understandable reasons, wants to increase its rate base, wants to develop or wants to pursue local growth objectives where collectively you end up with outcomes which are increasingly disturbing to the population at large. Probably the people who are now the bandits in the system are not the people who want to put in \$200 million industrial developments. Most cities and towns have pre-existing industrial zones and planning arrangements to facilitate and to at least try to provide some flexibility in that area. But, up and down the littoral zones of Australia, we are now presented with what used to be called 'the white shoe brigade' descending and offering another \$70 million tourist development for this cove or a \$300 million development for such and such. The mechanism for dealing with community concerns and addressing them at a local level and for a review by planning appeals seems to be missing the point in terms of the cumulative impact of these things. I was wondering whether you had any reflections on that.

**Mr Noonan**—You have raised some very good points. The cumulative impacts—the small changes—are ignored totally in the system. People do not have the intellectual capacity to work those through. The legal framework does not have the capacity to see those through. It just sees that that is on the table—approve it, yes or no. So no-one is looking at that. The coastal residential development I think is the classic representation of a system failure. I will give you one example. In Wollongong, the Port Kembla copper smelter employed 1,000 people. From about 1995, the Japanese spent close to \$500 million bringing in what they thought was the best technology to make that state of the art technology. We have always said that we are a country that has resources: we dig them out and sell them to somebody else, and they do the value adding. Here we had some way of bringing in a whole range of metals and value adding with smelting, packaging and sending them out. If I remember correctly, the figures were something like \$50 in and \$500 out. So it had tremendous potential. Whoever did the land use planning in Wollongong some time ago let the town come up to the centre. The facility put in was state of the art for smelters. If it were sitting out at Broken Hill, it would have survived perfectly and everyone would have been quite happy with it. But the facility was sitting where flecks of acid material were hitting the paint on cars, causing micro dots.

The community turned against it something horrible. The council had the agenda—rightly; I am not arguing about that—of going into a modern tertiary setting, a university with green parks and all that sort of stuff. There is nothing wrong with that. But a natural conflict was set up. Why I despaired is I knew the answer if I were to say, ‘Here is a billion dollars. Set up a new industrial centre in Australia that is close to a shipping port—or build a shipping port—so that we can export and so our current account, our balance of trade, will survive, jobs will be created and people can live a coastal zone. Make sure it has water and lots of stuff. Pick a spot and go for your life.’ There are no such spots left. This one had a railhead going into it. It had a shipping port. It had a superb road system going through. It was tied to other industries like BHP, so they could use cogeneration, and all those wonderful things of the future. It is now closed because it could not fit in with that community.

**Ms GEORGE**—Plus it could not meet the guidelines that the state government had required of it in terms of its operating standards.

**Mr Noonan**—That is a key point. The guidelines were imposed on it to meet the needs of the community next door: ‘You will not have a particle count greater than X’. Certainly the regulators had to do that because you would have had a distressed community being severely impacted. But had that area, that activity, had what I have described as a ‘civil buffer zone’, the community would not have had the impact. The whole \$500 million investment, plus multibillions of dollars of macroeconomic value to Australia over the next 20 years, died purely for the sake of half a kilometre of land. As I said before, things are sunk, they are done, and history could do nothing about it. It is just a sad case. There was no answer. The community had a right to live there. They bought in good faith. A thousand workers lost potential employment, which is sad. It is the same community, by the way.

In answer to your question, I think the coastal issue is the most acute one we are facing because residential developers will always outbid anybody else: ‘Whatever has got into our site, we want to live there, and we will pay anything for it.’ They know that they can wring massive rent from it. I think it is the big issue. I believe the tension I described before, which will increase to 2025, is most acutely felt there. If I were running Gladstone, Port Kembla or Newcastle ports, I would be nervous because I know that the vice will tighten around my head every year progressively—not to mention an aging population that we know is going to sit there, and that will not want to work in those sorts of places. They won’t give a rat’s if the place closes down. The problem I have described as a sunk historical is just starting.

**Mr KERR**—Just following up your point—and my point too—about incrementalism, we have seen not only the example you gave of an existing industrial site being crowded by new residential development, but also in New South Wales, for whatever reason, land development occurring near the site of a proposed international airport. We have seen instances where we have allowed residential creep right up to the site we are going to tomorrow—Lucas Heights. This is a tick-a-box process, where you do not have an overview of the cumulative impact of incremental decisions and you are not prepared to draw bright lines and say, ‘No; we will not allow private profit to subdivide land close to certain kinds of areas that we need reserved for long-term public purposes.’

There is a real danger of this process getting us into terrible trouble. Again, going back to coastal policy, how can we manage the politics of having a bright line policy that says, ‘At some

point you are going to have to prevent people taking the capital gain that they would otherwise expect—the farmers and the property owners in outer suburbs who may say, ‘Suddenly I have the opportunity of turning a piece of dirt that I inherited from dad, a farm of four acres of land, into \$30 million if I subdivide it’? How do we stop that?

**Mr Noonan**—I know the tick the box thing is wrong, but I might just make the boxes slightly more complex. There are a number of coastal resorts developing around Australia where there is not enough fresh water. The drinking water capacity cannot cope, so they say, ‘We’ll put in more treatment facilities.’ But hold on—the creek that feeds that area is already overcommitted. So they say, ‘We’ll take somebody else’s creek in the next town along,’ but the reply is: ‘No, sorry, that’s out. Keep your hands off.’ I know of two of those circumstances in two states. They may be rate limiting already, but if you forced the local council to sit down and do a water balance, a greenhouse balance et cetera—if you started refocusing on the true externalities value of that coastal area—you might actually make people pay slightly more for the land, because you will want a lot more compensation for the areas than they have been prepared to put in in the past and they might have to ask some harder questions about what it means. Those questions are not being asked.

That is not picking a fight with local councils. They cannot maintain enough skilled staff to ask the questions and analyse the awfully complex data that is required. Councils do not have that sort of money. That is another failure in the system—that the decision capacity has come down to small groups with rate pegged systems. They cannot raise money. They can hit the developers, but that does not provide for a futuristic infrastructure capacity; it just pays for what is already there. I think there are ways in which a system could do it. I go back to the recommendation that it needs someone—I will not use the word courageous; that is a *Yes, Minister* term—with a strong argument to put forward that says what you said: ‘We’ve got to start drawing a line. These are the implications of drawing a line, but here are some answers.’

I think that there could be a framework put out that could, over the years, progressively be developed for guidance for councils, for industry and for the states and could become a sort of intellectual focus on good practice to start that ball rolling. I would certainly work with you on the coastal one, because I am concerned that they are going to lose the capacity to export—I am interested in international economics—and we are going to suffer. We will be like Haiti if we cannot get our export agenda sorted out. Ships are already queuing up off Newcastle, Gladstone et cetera trying to get in. They just do not have enough access points. If China, for instance, is developing its port facilities—as it is doing—why would you send a ship down here that has to sit outside for days and go twice the distance when it can whiz in and out of other spots? Putting your finger on that coastal spot has hit a nerve with me.

**Ms GEORGE**—You have some concerns about private-public partnerships because of what you perceive as the inadequacy of recourse for communities. Do you know of any good models that have operated which we could draw some lessons from about community response and input?

**Mr Noonan**—I know of models that have worked well. Without giving names, one has worked well from the point of view of working with the community but they have had a terrible fight with the regulators over tangential issues—commissions of inquiry and things like that. The difficulty I have there is that the community does not really know who the accountable entity is.

In answer to your question, the effort needs to go into saying, 'If you're going to put a large longitudinal linear infrastructure facility in place—a rail line, a transmission line or a road—and it's going to use private capital, there needs to be a very transparent perspective on who is the owner, operator and accountable entity.'

That comes back to how the Crown writes the contract with the PPP partner. They can keep the accountability or they can pass it on. It all comes back to risk financing. Outside contracts are confidential; you do not get to know what is in them. So if you ring, say, Transfield, Abbey Group or whatever they are likely to say, 'That's outside our charter; that's the RTA'—or whoever it is. My suggestion is that anything that makes the whole process of ownership, accountability and responsibility back to the community very clear and transparent would move the agenda on dramatically and would do so for a lot of other businesses that deal with those entities as well, because they are never quite sure whether they are dealing with a government that has immunity or a private enterprise that they can deal with commercially. So, yes, I can give you examples but I am loath to because there are other implications. I actually think PPPs are the way to go. They are going to need that massive capital—

**Mr KERR**—Private contractors in Abu Ghraib did not seem to enhance the process.

**Mr Noonan**—I would like to see that contract!

**Ms GEORGE**—So the lack of transparency is hedged in by commercial-in-confidence arrangements?

**Mr Noonan**—Yes, they often are. They have been traditionally.

**CHAIR**—Doesn't your description, though, illuminate what is a better way to go? I concur with what you are saying, but the private-public partnerships often do not involve the community—they are spectators to what goes on. These things work best—using some examples in the land use planning area—where you have large estates of a sufficient scale where the developer can put in place the water infrastructure, and then agree with people living in that estate what the cost-sharing regime will be and deal the consumers in as part of a management process. Whereas I think a lot of the public-private partnerships are the executive of the day dealing with a private entity in coming up with some arrangement that they think—and each one assures the other—will suit whoever the client group is, and then the client group just gets stuck with it. It seems to be where things get a bit ordinary.

**Mr Noonan**—That is spot on. An example I can give is Coliban Water in Victoria, whom you have worked with. They have now brought in Vivendi to do the drinking water system, and it is as good as we have seen. It is a magnificent set-up. Most of that local community is in favour of it, but other communities saw capital moving out.

**CHAIR**—But they had a conversation about how much people were going to pay.

**Mr Noonan**—That is right.

**CHAIR**—They actually went to the water users and said, ‘You can have this, and it will cost you that,’ or, ‘If you want this level of water standard, here’s what it will cost you.’ There was that conversation.

**Mr Noonan**—That was by Coliban Water, not Vivendi, so the community knew they were dealing with the one who was their protector and the one who was going to be driving it. Then when they got it sorted out, they said to the world’s best: ‘Okay, do the world’s best. We’ll worry about the costs agenda.’ That is one, I think, that is a good model. That meant that the Crown, the client body, going out saying: ‘We’re going to do this. Have it out with us.’ So by the time they go into the PPP, the whole agenda is laid out. But that is not always the case. It is often: ‘We don’t know how to build that thing. Here is a build-own-operate—just go and do it.’ So it is the private enterprise that goes out to the community. Then as soon as they get skewered by the community saying, ‘Hold on, we don’t like this,’ they say: ‘Don’t blame us. It’s the government that wants to put this in. How dare you argue with us.’ That is the problem, I think. If there is a way of making that open, I would suggest that in your broad national strategy I am describing there would be a superb chapter 6 on how these things could be done.

**Mr KERR**—I have a follow-up question. You said that local government does not have the capacity to deal with some of these more complex issues. Part of that is an issue of scale, no doubt.

**Mr Noonan**—Yes.

**Mr KERR**—I come from a state—Tasmania—where we have just reduced the number of local councils but we still have proportionately, I think, far greater numbers per head of population than anywhere else in Australia. Some of the councils really do not have a rate base sufficient to sustain the expertise necessary to do a detailed investigation of the various proposals that are put before them. Do you have any views as to the minimum size of an effective local government body to undertake these kinds of tasks? Presumably there is some threshold point of capacity, given the kinds of applications that are to be dealt with. There has to be some breadth of both professional knowledge and, I suppose, breadth of representative elected capacity to make wise decisions.

**Mr Noonan**—Neither the bureaucrats nor the elected representatives can often cope with a dramatic change that could be posed by a new industry, which they have never heard of before, saying, ‘We’ll go there.’ I think I mentioned one of the poultry ones that needed a quarantine area of about 25 kilometres around it so it would not have infectious diseases: a brilliant set-up, but the council had no hope of coping with that. I do not think it is a threshold issue. I do not mean this in a pejorative sense, but I think it is an intelligence issue. There are ways around it if a council sees this coming at them, and that is through affiliations with other councils—these ROCs et cetera that are set up where they meet, say, monthly and have their environment or economics people meet—so that they as a regional entity can function.

They can also be far better at getting a really good community to handle, as opposed to one or two elected reps who may get enormous flack from a couple of local people. They can balance, they can share experiences and they also know how to find the expertise. If the council came back and said: ‘Your thing is going to be a problem for us. We don’t have an air quality scientist and we’re going to have to go there to get it,’ it is coffee money for the big business to say,



'Fine, go and get them.' You may have a conflict of interest thing if they give the money to the council to go and get the scientist, but there are ways around that as well. So I think the issue for the councils is the affiliations, the linkages. Some areas do it well; some do not. It could be geographical isolation. As I understand it, in Tasmania your councils are slightly more powerful than councils in other places. I might be wrong on that but I know Queensland has very strong councils and I thought your local government system was quite strong as far as statutory capacity.

**CHAIR**—More so than here in New South Wales. It is a discretion in Tasmania, but it ends up in the courts here.

**Mr KERR**—A lot of matters end up in courts in Tasmania. Of course, there is a tendency to more prescriptive planning instruments now—the tick a box. There is a framework that essentially sets out a whole series of things that are required for the grant of permits if criteria are met. There has been an increasing tendency to litigate, but in the litigation of these things in the planning appeals tribunal the community feels entirely excluded because it becomes a play land for lawyers rather than being a citizens tribunal, which was the original intention.

**Mr Noonan**—I think the notion of a citizens tribunal plugged in somewhere is a very valuable thing. I think I have said in my paper that I know of large companies looking to spend \$500 million to a billion dollars who would welcome that, because when they sit down and look at their plans they will say: 'We didn't think of that. What an excellent suggestion. That saves us money.' They will often go into these discussions really looking forward to seeing what the locals, who really do know the dynamics of the scene, can bring to it. Often an international engineering consulting firm will say, 'This is ABC—it's the best way to go.' So if that process were set up I do not believe responsible business would have the slightest problem with it. If they do, they are not responsible, and who cares about them anyhow?

**CHAIR**—It comes back to what we were saying earlier about the governance and the processes involved. In your paper you advocate for a certain scale of activity that makes possibilities within our reach, whether it be the size of the development or the engagement with the community, and you talk very much about engagement at the local level so there is ownership. You say we need more certainty but we need some more wiggle room to get a better outcome, that we want to be strategic not situational. You say, 'Let's engage everybody at this level even though they might not see the connectedness of it but when it gets situational it's going to be ugly.' I see that is at the heart of our challenge: how to get a shared purpose among communities that has sustainability as its bedrock so that people understand it and Harry, the investor, turns up and has some idea of what is acceptable in the eyes of the local community and can engage at a level where we get the best out of it. That is very different from the framework that operates now. We have even had put to us a separation of powers argument that says, 'You elected officials should be setting policy and signing off on strategic documents,' and then: 'Rack off, hairy legs! Leave it to the professionals.' And if it is the neatest correct entry then you get your permit. It was a kind of frustration with the whole process that seemed to say that we are not quite getting this right. Other than that, it is pretty straightforward, Geoff—we've got this nailed, other than that!

**Mr Noonan**—I will look forward to the national policy documents then. I hate to say it but that movie *The Castle* said it all—and if you had Michael Caton sitting here I am sure he would

tell my story better than I can. It had a classic circumstance of somebody who felt aggrieved by something that might have had superb macroeconomic implications for wherever. I guess it was the thinking process that his family went through to discover what it really meant to them. On the other side of the fence were those who could not understand why he would not want to get out of that place, but probably if they spent a lot more time trying to understand what his real needs were they might have.

**CHAIR**—People have had a look at our inquiry and said, ‘You’re dreaming!’ But we are having a go. If you have what we call an ‘Aha!’ on your long commute back or if you are in the shower and you have a lightning bolt of insight that you want to share with us, do not hold back. Thank you very much and congratulations on your submission. We will look for it appearing in total or in part in other publications.

[11.50 a.m.]

**BROGAN, Mr Piers Patrick, Member, Steering Committee, Sustainable Transport in Sustainable Cities Project, Warren Centre for Advanced Engineering, University of Sydney**

**RALSTON, Mr Hugh, Director, Warren Centre for Advanced Engineering, University of Sydney**

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

**Mr Ralston**—I was the initiator and chair of the steering committee of the Sustainable Transport in Sustainable Cities Project. It would be reasonable to say that at the beginning of that process I was in no way any kind of a professional in areas of planning, architecture, transport or things related to them, as I am engineer who has worked in building products and manufacturing over the course of my career and in management consulting.

**Mr Brogan**—I worked on the steering committee of the Sustainable Transport in Sustainable Cities Project and also headed up the technology module of that project.

**CHAIR**—Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament. Consequently, they warrant the same respect as proceedings of the House itself. It is customary to remind you that giving false or misleading evidence is a serious matter and may be regarded as contempt of parliament. Are there any introductory comments or opening remarks that either of you would like to make in support of your submission?

**Mr Ralston**—No. First of all, I understand that our submission documents and the CDs that belong with them are already in your hands?

**CHAIR**—I believe so, and we have extracts from them that the committee secretariat provided to us and supplementary material which we had time to read on the long flight.

**Mr Ralston**—Importantly, and despite my statement in saying who I am, I did work on the project for five years and not only contributed to about 100 roundtable discussions but also wrote one of the papers and the final entry to the introduction of the project. What I would like to do, if I may, is to read a short statement which I have done to refresh what we see as the core issues, and I will answer any questions the committee wish to ask me.

The Warren Centre's Sustainable Transport in Sustainable Cities Project adopted the Bruntland commission definition from the OECD, whilst recognising that specific situations require different interpretations. That definition is:

Sustainable development is that which meets the needs of the present without compromising the ability of future generations to meet their own needs.

The Warren Centre project set out to examine the reasons for road congestion, poor public transport and other unsatisfactory transport situations but quickly found that transport is a derived need and that the real issues are sustainability and access.

Cities are the drivers of a modern economy. They exist because of the jobs they create, the opportunities for education, health services, culture, entertainment, relationships, sport, international connection and more. They need to be efficient, productive and effective, meaning that they use minimum resources in terms of water, energy, materials and, above all, human energies to achieve personal and community outcomes or goals in terms of health, wealth, growth and lifestyle. 'Lifestyle' is a terrible word, but it has a lot of meanings for different people.

The project defined a vision and seven objectives, covering the areas of environment, social and economic performance. I will not go into those, because they are listed in detail on page 26 of the final report summary. There were, from these, five key findings of the project which, in essence, are the key strategies that we think are necessary in order to achieve a sustainable city. The first is: develop a city of cities structure. Why? To improve access, to reduce travel, to save energy and to improve health. The project considered that any city of approximately one million or more needs to develop more than one significant CBD at the centre for a region—and this is to us a very important statement. It is not a set of lines on the map; it is not exactly defined by local government regions, catchment areas or whatever. It is a region with common aspirations and values. It is not possible to specify an exact population or size, as this will be determined by differences in history, demography, geography and the existing built environment.

Each centre needs to be balanced, have mixed use facilities, be able to provide housing, jobs, services, culture and entertainment—and I include sport in entertainment. Each centre needs to have its own essentials and its own identity but be complementary to other centres in the conurbation. We make a very clear point as an example of that complementary nature in talking about the Randstad in Holland. Amsterdam, Rotterdam, Den Haag and Utrecht are in effect a single conurbation where finance and government are centred in one place, justice and so on in another, commerce and trade in another and education in another; but they are extraordinarily well linked together.

The second one is to support the economic, social and cultural growth of the centres. Many efforts to create new cities fail, whether they are within a conurbation or new greenfield sites. Two of the primary reasons are failure to create jobs and good connections to other places. There must be a hierarchy of transport which is frequent and integrated. If this connectivity to the complementary centres and/or the historical CBD makes the regional city of cities it must be a pleasant place to live and work, with walking being an easy, safe and effective mode for many access needs. With regard to that hierarchy of transport, local transport must be frequent—and we keep mentioning 'frequent' throughout all our summaries. It must be, above all, scheduled in frequency and not in time. The concept that you wait for a 5.21 is absolutely wrong.

**CHAIR**—So 10-minute windows rather than nailing a time?

**Mr Ralston**—Yes. You know that when you get to the bus stop another bus will come no more than 9½ minutes from now. We do not go to bus stops because we are not sure when the bus is going to come, if we are the ones who do not use them a lot. We do go to bus stops

expecting the 9.21, and when it does not come we are frustrated and annoyed and we may go away. We need them to be frequent. Above all, local transport must be scheduled in frequency and not in time. It must be integrated with subregional and regional transport at appropriate points and times.

Secondly, subregional transport must be focused on its city or cities and integrated forward to high-speed intercity transport and backwards to local transport. If we use Sydney as an example, that means that you do not have a train or a bus that, when you are way out in the outer suburbs, heads only to Sydney. It must head to your nearest regional centre. Your nearest regional centre may be a Blacktown, a Liverpool, a Hurstville or a Chatswood. It must be focused on the cities. Regional transport—and this is transport which connects the cities—must connect each of the cities within the city across the region and to the traditional centre. It is not good for all of this stuff to come into the main centre. If we take London as an example, they have done that over many years. Not every train in the London metro heads for the city; many trains head over there or over there, in parallel to the city.

Jobs are crucial. Mixed-use planning is essential. Governments at all levels must provide both carrots and sticks to encourage business to locate at centres to encourage employment opportunities. Planning authorities must nominate which cities are designated within the greater city only after exhaustive research, community consultation and public debate. It is no good to say, as a minister of this state did at one of our larger public meetings during our project: ‘Well, we’ve nominated about three. There will be at least 15.’ There cannot be as many as 15. None of them, except one or two, will be of adequate size if we nominate 15. We have to have the courage to say to some local councils, ‘I’m sorry; you’re the No. 2 city in that region,’ or ‘You’re the No. 4 city in that region. This one is the largest city in the region and is the one we will support by having a focal transport system and for which we will support special incentives or whatever is necessary in order to create jobs to create activities.’

Planning authorities must nominate which are the designated cities within the greater city only after exhaustive research—understanding what is there, why it is there et cetera, or what could be there and why it could be there—community consultation, which we come back to again shortly in this paper, and public debate. Public debate has now been going on for quite some time on all these issues but needs to intensify.

Key investors such as shopping centre operators, building developers and local government must be brought into the discussion early and discouraged from investing without broad consultation. One of the worst examples in Sydney of this type of thing was a central government that placed Wetherill Park way over there when it became clear that we could not afford to use the land near Sydney as industrial land any longer, so all the people who were going to work in factories and large warehouses had to go to Wetherill Park. No transport operator was there. There was no rail transport at all, no major highway connections et cetera.

At the opposite end, we similarly had a developer—and I forget now which developer it was, but I think it might have been Grace Bros and the AMP—which went over to Macquarie when there was nothing there and put a shopping centre there. Years and years later, we are finally taking a train in the area, because all sorts of other things have gradually developed. But meanwhile a totally unsustainable situation has developed in many other ways because that area

is totally car dependent. Major nodes associated with health education and entertainment must be integrated into or adjacent to the mixed use centres at all levels.

The proper integration and development of transport requires the right funding and pricing. It is essential that prices and funding reflect a policy and the short- and long-term needs of an integrated transport system. Pricing must take account of the whole of life of the infrastructure and the operating costs. These costs should include economic, social and environmental impacts. Such matters as fuel tax and allocation between transport infrastructure and environmental impact reduction need to be considered. The distortion—one of my personal bees in the bonnet—created by FBT towards private car usage for work and its distortion towards large, high fuel usage vehicles needs to be reviewed. It is a major distortion, which creates the need for roads. It creates the opposite effect—and I will come to that—in respect of public transport.

**Mr KERR**—Could you just simplify that—take it out of economic speak—for me?

**CHAIR**—Duncan is hoping you will reiterate your point in a practical way with examples.

**Mr Ralston**—In terms of FBT? If I am an executive—or probably right down to a salesman or a mid-ranking executive in a company—I can put some of my salary, because now people talk in packages, into a car, possibly more than it should be in terms of percentage, if I am a male with a big ego and I think my car is more important than the amount of money I take home in cash for children's clothing et cetera.

**Mr McARTHUR**—We know the theory of what you are saying. How are you going to argue the case?

**Mr Ralston**—Arguing the case is very simple as any distorting tax has to have a purpose. I do not believe that FBT has a purpose, other than to reduce the tax of people who are paid better than other people. I do not think it has a purpose. Of course it has been encouraged by the oil companies and the car companies and, therefore, supported by them in a number of ways. But FBT is a distorting tax against the use of public transport.

**Ms GEORGE**—And it is often indirectly subsidised by people who do not have access to public transport.

**Mr Ralston**—Yes.

**Mr Brogan**—And you cannot salary sacrifice your annual season ticket on public transport.

**Mr Ralston**—It leads to a whole lot of things. You have a company car which we are paying FBT for, or whatever particular method your payment is, therefore I have to put car parking under the building in the city so that all my company cars can park there.

**Mr McARTHUR**—What are you advocating? You are telling us what is wrong with it, but what are you advocating?

**Mr Ralston**—If a taxing method such as FBT arrangements is to be used, they should apply also to public transport, to parking or other things which will make it easy for a bus to park or

whatever it might be. It should be spread over all the transport options. It is through the incentives that we can do more to assist the—

**Mr McARTHUR**—You tax the public commuters as well. Is that what you are saying?

**Mr Ralston**—No, you do not at all. You give them the same incentive. You either give them the same incentive—

**Mr McARTHUR**—How are you going to do that? Tell us how you are going to do it.

**Mr Brogan**—Salary sacrificing of public transport fares.

**Mr McARTHUR**—Okay, so you are going to give them a tax deductible fare to work. Is that what you are suggesting?

**Mr Ralston**—Yes. That would be an option.

**Mr McARTHUR**—Let us have some practical suggestions rather than—

**Mr Ralston**—That is inherent, when you get the—

**CHAIR**—Let us keep going with this. This is the hazard with long introductions.

**Mr Ralston**—This incentive as a condition of parking levies will assist to deter private car usage and to provide that the public transport described above is frequent, safe, comfortable and appropriately funded. Higher fuel prices will deter use of high consumption or polluting vehicles. Incentives need to be equal or biased towards public transport during peak periods. For example: tax deductions for journeys to work in peak periods on public transport, tax deductions to companies, schools and other traffic generators, and provision of appropriate transport for specific purposes—the concept of a bus that takes people to a club, a hospital or a school which is provided by the owner or operator of that facility.

The fourth element is to engage the community, which we heard quite a bit about from the last speaker. A program of public forum debates, media releases, conferences and seminars has been held by the Warren Centre over the last five years. It is our belief that this activity has promoted a state wide, if not national, debate on the issues related to sustainable transport in sustainable cities. The need, however, is to further widen the debate to include a policy of education at all levels to make people aware of the disadvantages of continuing our present course of congestion, frustration and being unhealthy—we see a lot about children being unhealthy. It is a two-edged sword. They get driven to school and they eat McDonald's on the way. There is likewise a need to promulgate, educate and inform about the solutions while engaging the community in the adaptation of those solutions to their village or community, local centre, regional centre or the conurbation.

There is not a one size fits all in any of these things. We know, for instance, and Piers might enlarge on this little bit, that when it comes to transport nodes the solution that suits an older conurbation area—from Hurstville to Hornsby—heavy rail is excellent if we can get the quality of that heavy rail up, if we can get it to run more frequently, if we can make it a little more

comfortable and if we can get it to dislodge its passengers a bit quicker. There is a major problem in New South Wales as the two-storey trains are inefficient in dislodging passengers.

However, the solution for a hilly area such as the north-eastern suburbs of Sydney may be a totally different vehicle. In fact, we believe it is an ultra-lightweight rail vehicle, which has a great ability to go up hills and has a great ability, when it gets to a more dense area such as Mosman, to go around small corners without disrupting the normal road traffic. If you go into the western suburbs, the solution may be buses—and almost certainly it is buses—but the buses must focus on the centres and the buses must be networked. There is a solution in the project paper written by Dr David Thorpe, which shows that if buses operate as a network, rather than as a historical route layout, and if that network allows everybody to reach a bus within 400 metres, then—using the same number of buses that, for instance, Sydney uses in the eastern suburbs—you can achieve a much greater frequency with the same number of buses and the same number of drivers at the same cost. So you achieve a much greater frequency and a much more effective result.

There is a lot of work to be done, and it is horses for courses in terms of where you do what. It is about removing the barriers to change. The current divisions of responsibility between state, federal and local government exacerbate distortions in planning, pricing and operation—in fact all aspects of the access, equity and liveability of our cities. For example, if a developer contribution to infrastructure is tax deductible, we are simply transferring costs between one level of government and another. If federal governments heavily fund roads and ignore heavy rail, light rail, ultralight rail and other forms of public transport and pedestrianisation, a significant distortion occurs.

It is significant that the Warren Centre for Advanced Engineering's technology and sustainability and energy committees are currently initiating projects on the energy efficiency of high-rise buildings and better measurement of water variables and are considering a project on disaggregation of urban water supplies whilst also looking at issues related to waste. All of these—urban structure; urban form; transport movement planning; energy efficiency of transport and buildings; protection of open space; protection of waterways, flora and fauna; the reduction of water usage; and the management of waste for reuse—will assist the establishment and operation of a sustainable city.

**CHAIR**—Thank you, Hugh. Piers, do you have something to add to that?

**Mr Brogan**—No, I am happy to respond to questions.

**Mr Ralston**—Chair, I will consider your questions and I will pass the questions to him when I think they get towards the technical side, particularly those to do with transport and such.

**CHAIR**—The broad thrust of much of what you are saying is a need for decision making at a government level to at least put in place the broad metropolis architecture.

**Mr Ralston**—Yes.

**CHAIR**—That is about making choices, and choices have people that are happy and not so happy. How do you see that working through the current governance structure where state and



territory governments dabble in parts of that picture but not all of it and then look to local government to fix problems but deny it half the tools and then, when it gets all too hard, they look to the feds, who are then about as welcome as a rat under the house unless they have a great bag of cash? In that construct, where do you see changes in the governance arrangements to get those core decisions that are the bedrock of the process?

**Mr Ralston**—I would like to start with two examples of where I think it went wrong in the past. The first one is Bathurst and Orange. I do not disagree with the concepts that led to a discussion about regional centres, but what happened with Bathurst and Orange is that nobody ever connected them. If you were going to call them one big city or think of them as one big city, somebody had to put an electric train or a fast bus or something on a fast highway that would get you from one to the other in 10 to 20 minutes in great comfort very frequently. But they did not do it, so that was a missing element; and, secondly, there was no discussion with the market—and I have said that you would start with good research if you were going to make a difference.

It is very significant that during the period that Bathurst and Orange were designated as growth areas—fully accepted by the state government, because they took government departments to Bathurst, and by commerce, who took some additional things to Orange—but no-one interconnected the two. But the market decided at the same time that they actually wanted to be in Dubbo. They had not examined what were the driving forces in the marketplace in terms of jobs, growth, employment and activities that would lead to the growth of those two cities. My statistics are not exact, by the way, but in the next 10 or 15 years Dubbo more or less doubled the growth of Bathurst-Orange in that specific period.

The failure to bring in the market component was the biggest error. The state and federal governments agreed. I know that the then federal government was Labor; I do not remember whether the state government was Labor at the time. As a result, departments like forestry, mapping and various other things were taken to Bathurst, and that was a good thing; it created a good educational centre. Bathurst has its identity now as an educational centre, a government centre and so on. Orange has its identity as a commercial centre. But in fact it was not what the market wanted. Dubbo was on the major route from Melbourne to Brisbane. Dubbo was the major centre for the whole of the western half—the north-western half in particular—of New South Wales. There was the growth of all sorts of things. The Dubbo zoo probably helped the balance of employment. That is the first point.

Coming back to the way that your question is framed, the answer is that we are learning something out of it. I recognise that what happened recently in water, for instance, in COAG is a real step forward. Our fathers who decided that the navigation of rivers was a federal matter and all other river matters were state matters put us in a terrible problem, particularly as we then made rivers un-navigable.

**CHAIR**—Coming back to that point, I am conscious of the time.

**Mr Ralston**—COAG is a solution at a bigger level—to look at issues like where funding should go. Whether funding should go into roads or rail in New South Wales is a matter that should have been cast at the highest level. When I look at the announcements that were made in the last few days, which I do not yet fully understand because I have seen the detail only in the last day, it seems to me that that would not necessarily have been fully discussed with the state

governments. Whether or not it has political purpose is not the issue; the fact is that what might have been best for Australia might have been the establishment of a high-speed freight rail link right up the eastern side of Australia. That possibly should have been the No. 1 priority. If there had been proper discussion with the states and if there had been proper discussion with industry—and I mean all kinds of industry, including the major freight industries and the exporters—it might have been one of the priorities, whereas at the local level—

**CHAIR**—Sure, but let me bring you back to—

**Mr Ralston**—the issue is that we do have to relook at the balance of power between the local government and the state government. We need larger local government areas. I heard that being discussed earlier. There is no question that the merging of local government areas allows you to have a planner who is a properly qualified planner and who has a staff. It allows you to have the right equipment, whether a number of councils contract the equipment from private enterprise, which is not a bad idea and which most councils do with garbage now but I do not think that they do it in all matters, and equipment goes all the way from the IT in the office to the bulldozer on the street.

**CHAIR**—Let me press the point of my question: who is going to decide and what are the governance arrangements, to take Sydney as your city of cities? You illustrate it quite graphically, and it is going to happen in every metropolis around the country. If you are going to have these subregional cities or focal points, you are going to have four or five of them within Sydney. That sets in place the architecture, the foundation and all that you have talked about. Someone has to make that call.

**Mr Ralston**—The state government has to make that call.

**CHAIR**—So you would be looking at state and territory governments to put in place the foundation architecture of this cities in cities vision that would then guide the investment?

**Mr Ralston**—Yes. Federal government has to participate in the linkages to the outside world. The linkages include ultimately, one would hope, a very fast train for passengers between Sydney, Canberra and Melbourne. And that has to link with, say, Liverpool, and from Liverpool to Newcastle.

**CHAIR**—There is a bunch of questions, so we encourage you to shorten the answers.

**Ms GEORGE**—With regard to the MagLev technology, I understand that the very fast train in Shanghai is now up and running. Can you make some comments about its applicability? In terms of the break-up of the city of cities, you divide Sydney into six subconurbations but you leave out Newcastle and Wollongong yet—

**Mr Ralston**—It is mentioned throughout the papers, and we do believe that maybe the Central Coast—Newcastle and Wollongong—are additions to that.

**Ms GEORGE**—Could you just comment on the very fast train options.

**Mr Ralston**—What a very fast train is, I think, is the first thing, and what is practical is the second thing. The third thing is which technology you would select. The first thing is what you want it for. You want it in order to get very quick links between one place and another. You do not want to stop at all stations. You want literally to go from Canberra to Liverpool, Liverpool to Sydney, and Sydney to Newcastle. You probably need at least two routes, one through the greater metropolitan area on the eastern side and one on the western side. One issue is that on the eastern side it will have to be tunnelled. You would probably have to tunnel under the harbour again, so it would be an enormously expensive thing. Would you therefore upgrade existing facilities or would you make a totally different choice? That might, for instance, be the AusLink choice. Piers has considerable knowledge of that, so we might ask him to talk on it.

When you go to the west, a very fast train, whether it be a TGV, a shinkansen version or a MagLev, is not the first question. It is: where would it be, what would its role be and so on? The next question is: how will this thing be funded? Who will fund it over the whole of its life? Will it be a public-private partnership, for instance? Will the permanent way be owned by the public?

**Mr McARTHUR**—They had an argument about that. We have been through all that argument. Why didn't it work out? We have been through the very fast train argument up hill and down dale.

**Mr Ralston**—One thing we did not do was to look at it in the city regions. All that was looked at was—

**Mr Brogan**—The point is that the very fast train has been canned because of economics. If you look at the Sydney Harbour Bridge in the 1930s, you will see that that would not have got within a bull's roar of a benefit-cost ratio of one at the time. There were just not the transport benefits. But because of it—because that investment was made—we now have North Sydney, which is the third largest CBD in Australia. The professionals did not have the ability then, and we do not have it now, to predict what those land use changes are going to be arising from infrastructure investment. In fact, the whole point with the very fast train is that, in its own right, it is a bus from an economic point of view but it can lead to very significant long-term land use implications. It can completely change the nature of the urban environment.

**Mr McARTHUR**—There was an enormous amount of effort put into the very fast train and trying to win the argument. Some of us supported it quite strongly, yet it did not get off the ground. After seven or eight years of debate and feasibility studies et cetera, it still did not win. Given all the positives—

**Mr Brogan**—It is because the narrow economics of it do not add up. They never will do, and they do not anywhere. They are loss making everywhere in the world.

**Mr KERR**—I hear the tension in the submissions. Mr Ralston has indicated that in respect of Orange, Dubbo and Bathurst there was a failure to apprehend what the market demanded before public investment was made. Now we are hearing that, in a sense, too much a reliance on market in terms of short-term economic appreciation of the viability of a project ought to be dismissed. I suspect there is no perfect answer for this, but, essentially, for large over-the-horizon investments, isn't there truth in that we have to make them but we cannot be certain of their

success? We may actually be funding a white elephant and, from time to time with the greatest of foresight or apprehension as to the possibilities in the future, we will make dud decisions.

**Mr Brogan**—You need to look outside the narrow economics. Using a 10 per cent discount rate leads to very short-term decision making and you will not get projects like the Sydney Harbour Bridge.

**CHAIR**—But many of the conclusions in your report recommend a far greater level of central intervention. Whether it is state, federal or local government intervention, the report seems to say, ‘Yes, give us more intervention but make it a damn sight more insightful and informed than it is at the moment.’

**Mr Brogan**—Holistic.

**CHAIR**—I think that goes towards what Duncan is talking about.

**Mr Ralston**—To draw a line on the map from Sydney to Melbourne via Canberra and say, ‘We’ll put a very fast train there,’ is a narrow decision. That decision needed an airport decision—and I know that is probably the worst decision.

**Mr Brogan**—With that fast train, the whole urban structure for south-east Australia will be different in 50 to 100 years time. Without it, it will be a different sort of place. That was not taken into account at all; it was not considered. Just the narrow, straight finances were considered.

**CHAIR**—But weren’t the conclusions contradictory? There was the gravitational argument that, if you put in transport infrastructure that has the speed and convenience of the very fast train, it may have the effect of ripping the guts out of the smaller population hub. People are attracted to, in this case, Sydney, and you would end up with an entirely different outcome to the one you had hoped for, which was to distribute economic activity in that focal point of human endeavour and where the population was going. I am not sure what the answer to that is, but the holistic argument spat out whatever argument you wanted it to spit out, and it just did not enlighten us in the end.

**Mr Ralston**—We are discussing two separate questions here. One of them is: how will you fund this thing that is going to take a long time to pay its way? I happen to believe that we have lost our way by governments not borrowing money for long-term capital investment projects. There must be what I will call ‘lazy money’ invested—money that will hang around for a long time that is invested by governments. It is nothing to do with current expenditure or whatever; it is borrowed for the purpose and not dealt with at all through the current expenditure budget. A mining company—the mining industry is a good example of a long-term industry—looks at the investment in its mine. For the first 20 of the 30 to 50 years life of a mine, there will probably not be a full return to capital. It may pay a dividend but that is really coming out of the capital flows. It borrows money at very high levels relative to its equity, and it always borrows that for the long term because the mine is a long-term investment. These are longer term investments—100-year investments.

**Mr McARTHUR**—You can get it wrong. That is the problem.

**Mr Ralston**—We do sometimes.

**CHAIR**—Do you have a killer point to make before we move to questions?

**Mr Ralston**—One of the questions there is that, when you do put in good transport, there is evidence that at both ends development takes place.

**Mr McARTHUR**—You talk about public transport. We have had other submissions about the number of people using transport and the cost of fossil fuel and oil. When do you think there will be a real changeover? With 85 per cent of the population using motor cars and 15 per cent using public transport, there has been a great advocacy by groups like yours that we ought to move more people onto public transport. When do you think that change will take place? When petrol is worth \$3 or \$4 a litre? Do you think sheer advocacy of the change will bring it about?

**Mr Brogan**—I think a lot of the pricing signals are confusing at the moment. The pricing signals are to use your car; it is cheaper. People forget about the fixed costs of their motor vehicle that they incur and only remember the cost of the petrol. If their operating costs were incurred as they used their vehicle over the year, that would be a disincentive to use it. Likewise, there could be better pricing signals with public transport—incentives such as salary sacrificing to get periodical tickets or season tickets.

**Mr McARTHUR**—What are you going to do with the motor car? What is your practical suggestion on how to price it better?

**Mr Brogan**—All the costs—the insurance, the registration and so on—could be included in the cost of petrol.

**Mr McARTHUR**—But the RACV keeps telling people that all the time—50c a kilometre, they tell them, but they still use the motor car. Until the price of petrol goes up, you will not make this change in the public-private sector. All this argument for, and advocacy of, public use is going nowhere at the moment because 85 per cent still use a motor car. Nobody has produced a solution to change it. The real change will come when it is \$4 a litre, and then they will start to think about it.

**Mr Brogan**—The price of petrol is pretty inelastic. People buy petrol and use it, whatever the price. But if you rolled all your fixed costs into it—your insurance and registration costs—

**Mr McARTHUR**—But that is not the evidence from Europe, where they have really made an impact on the use of petrol. They have priced it very high compared to America and Australia.

**Mr Ralston**—But they also have the best transport in the world. There is no question about that. The European train system is excellent.

**CHAIR**—You cannot make strawberry pie out of chicken.

**Mr Ralston**—If you go down to the Alsace-Lorraine area, for instance, and the Schwarzwald where you have large use of light rail, the integration factor where there is light rail that goes along the main line—

**Mr McArthur**—What are you advocating, then? What is your real position?

**Mr Ralston**—If the real position is a single word, we have a real problem. The real position is an integrated solution which deals with incentives to both improve public transport and integrate public and private transport. Public transport does not mean publicly owned transport, by the way; it means mass transit. That means that all sorts of distortions have to be removed and all sorts of incentives provided. We need much better transport from that point of view and much more realism about the costs of car travel, including the environmental and social issues—which include accidents and so on. We carry on much more about wars than we do about the huge number of people we still kill and maim on the roads.

We need to accept the fact that the car will be there forever. It will be a much cleaner car, it may be a smaller car and it may even be a pooled car. There are countries in the world now—Switzerland is one, in particular—where, when you get out of the train, you have a swipe card and you swipe the card and sit in a car that happens to be the one that is there. You drive it home and drive it back to the station the next morning. Somebody else may have used it to go shopping or drive the kids somewhere during the day. The solution is not a simple, single solution; we have to progressively add the good bits. The great thing we have in Australia is that we do have less built environment than they have in Europe and parts of North America. We can therefore make our decisions more easily than when there is a huge amount of heritage and old built environment.

**Mr JENKINS**—You have mentioned movement of freight as part of your work. There obviously has to be a balance between the number of semis, B-doubles and triples that are going up and down the national highway system and the strength and ability of our rail networks to deal with it. A couple of weeks ago we had the rail people in. They gave us a story about freight having to leave Melbourne early in the afternoon because when it reaches Sydney it has to meet not a curfew but a deadline because the rail is used by public transport. So obviously there are problems. But the solution is unclear—whether it is a whiz-bang, you-beaut, let's do it the proper way, holus-bolus greenfields option or whether we go back and retrofit and do things to adjust the present system. For instance, do we have a freight node on the outskirts of the big cities or do we try to improve the network inside the cities? The dilemma for us is: what direction should we be pushing now that will have the most long-term benefit.

**CHAIR**—LA was the example that was given to us of an inland internodal transport hub.

**Mr Brogan**—On the road-rail arguments and infrastructure requirements for interstate transport of freight, the announcements made by the government yesterday or the day before moved strongly in the right direction. The location of hubs will not be such an issue in Sydney, for example, once the new dedicated freight rail line for which the funding was announced yesterday is constructed. We could have freight hubs in the south-west of the city but there will also be a unique freight line all the way through to the port via Enfield. So it is not going to be such a big issue. It is a big issue now because of congestion.

**Mr Ralston**—You have touched on what I think is also a very important point. There really are three lots of freight: the freight that comes into the city region, the freight that goes out of the city region and the freight that goes around the city region, in all directions. I forget the exact statistics, but they are in the papers. I think around 180 million tonnes of freight rotates around

the city, 40 million tonnes comes in and 25 million tonnes goes out. The 40 million tonne activity will be significantly affected by having a single dedicated line coming to the port and probably eventually going across to the north side of the city, more or less following the route of the orbital road, which presumably will join the Newcastle line. That deals with that part of it.

The 25 million tonnes that comes out of the city, some of which obviously comes from the port and the airport, likewise will fit in with that. But, regarding the 150 to 200 million tonnes that rotates around the city, I would like to come back to one of the statistics that came out of the early studies. I do not remember the exact statistics, but the population is growing by one per cent per annum and I think car journeys are growing by two per cent per annum. Light freight is growing by six per cent per annum, and that is unbelievably unsustainable. Why? Because of just-in-time policies and because large organisations—I do not like using trade names, but it is Woolworths, Coles and so on—very sensibly centralise their warehouses on the edge of the city and have lots of little things that go into that.

The huge price of land and facilities near the city is resulting in tradesmen and other people having to have their depots way out. At any time before 7.30 in the morning, half the traffic on the Harbour Bridge is little vans, utility trucks and things, heading into the city to work in some way or another, supplying either goods or services. We have to accept that during the peak hours we have to get as many cars as we can off the roads so that the roads are available to freight. We cannot put a rail line everywhere for freight; we can only deal with the trunk issues with rail. We have to get cars off the roads during the peak hours so that the roads are available for freight to be delivered to the stores between 6.30 and 10 o'clock.

**Ms GEORGE**—Is that an argument for something similar to a congestion tax?

**Mr Ralston**—Yes, it is. Congestion pricing, parking levies and all those things can help. FBT distortion et cetera can help. But we have to accept that freight will need to move around all over the place and that mixed use will not stop that. It will reduce some of the distance though, because, if we have mixed use centres out of the centre, more stuff is going to them and less stuff is heading for the city.

**Mr KERR**—There is a question of order and priority here. In large cities, you can imagine that, if you were to make long-term investments on that low rate of return that you were speaking of, you could put in all the infrastructure that would mean that punitive effective tax rates on bringing a car into the city would be acceptable because there would be other alternatives that were convenient and accessible. But if you are essentially going to put punitive rates on citizens already suffering locational disadvantage, without those things in place, then you come up with pretty much a dog of a policy. So my first query is about how you order this priority. I would have thought public investment first is necessary before you do the other—you have to put the gain before the pain.

The second question I have is this: all this would work reasonably well in dense urban environments, but what about in less dense ones, such as smaller cities like Hobart and Launceston? In those there may be the volume to have a 10-minute bus service from one small node to another but for most of the suburbs the economics of running bus services like that in the small conurbations are not going to be there.

**Mr Brogan**—There are new technologies available—automated people movers—that can provide small vehicles at very high frequencies. Buses and trains and light rail trams are heritage modes. There are new modes out there that can provide much more cost-effective services in low-density areas.

**Mr KERR**—I have a heritage mode brain, I am afraid; I need it explained, but probably another time will do.

**Mr Ralston**—There is one final point to make. The distortion, for instance, created by taxi monopolies, which says that the only on-call transport can be a taxi, is very bad. On-call transport might be a small bus or a medium bus or whatever. You can have a large bus, but in most states you cannot have a small bus. In smaller cities I am sure you can have a small bus, such as an ordinary family people mover, performing a role somewhere between a bus and a taxi. There are a lot of distortions in the institutional structures created by such things as a taxi monopoly.

**CHAIR**—Thank you very much, Hugh and Piers, for your comprehensive submission and your presentation today.



[12.41 p.m.]

**BLAIR, Dr John, Research Associate, Faculty of the Built Environment, University of New South Wales**

**GRAHAM, Mr Peter Moulton, Technology Stream Leader, Architecture Program, Centre for a Sustainable Built Environment, University of New South Wales**

**KING, Mr Steve Earnest, Associate Director, Centre for a Sustainable Built Environment, University of New South Wales**

**ROCHE, Mr Benjamin Christopher, Coordinator, Sustainable Living Project, Centre for a Sustainable Built Environment, University of New South Wales**

**CHAIR**—Welcome. 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 itself and consequently warrant the same respect as proceedings of the House. It is customary to remind you that giving false or misleading evidence is a serious offence and may be regarded as contempt of parliament. After that cheery, joyous welcome, are there any short opening statements or introductory comments that you would like to make?

**Mr Graham**—To be short, we have summarised the submission for you today into four major points which describe the thrust of what we are talking about. The first is that we are advocating what we call a whole-systems approach which recognises that a sustainable city is something which emerges over time, and therefore we need to encourage mechanisms for developing adaptive capacity within communities and to note the importance of mechanisms for providing learning and innovation. That led us to suggest an additional component to this strategy, monitoring and feedback, as being essential to the development of a sustainable city.

The second main theme of our submission is that we need to address the issue of decreasing the total consumption of materials and energy that is linked to increasing house size and not just increasing the efficiency of consumption. We need also, in line with this, a massive project in decentralising the energy supply, specifically renewable energy supply. This project should be on the scale of a Snowy River scheme for each city.

The third point is that a massive effort to improve existing housing stock and existing building stock needs to be addressed. You will see in our submission that we recognise that new buildings and new built environments are being addressed but we need to address the existing building stock. In particular, we need to make retrofit materials and technologies free if possible and to also incorporate the monitoring of actual performance of built environments, not just the rating of predicted performance of new built environments.

The last overview point is that we need to design new buildings for deconstruction and encourage the development of industrial ecology within the building supply chain so that in the future we can mine the built environment for resources we need for its continued maintenance

and development, rather than having to constantly mine the natural environment for building resources. Those are the four major points in a nutshell.

**CHAIR**—That is excellent. I am interested in your reflections on the conversation that was taking place before about governance arrangements and how you would bring to life some of the points that you are making. I wonder whether you have any insights or reflections on where are the opportunities to get better outcomes or to replicate some of the good outcomes that we are getting to ensure a better outcome overall. I would be interested in your thoughts on that.

**Mr Graham**—We address points 2 and 6 of the working paper and we have added point 8 on feedback mechanisms. We might address that question by dealing with each of the points that we looked at. In relation to decentralisation of renewable energy generation, linking, for example, the building integrated photovoltaics and so forth with, say, new homebuyers' grants is something that we have suggested. We need to look at those sorts of incentives. Perhaps we also need to look at working with green mortgages and those sorts of things to try and improve markets for the integration of sustainable or renewable technologies in houses. We need to look at the rating schemes as well. I think we have basics in New South Wales coming along. We also need to look at incentives such as speeding up development approvals and so forth for building projects with these sorts of measures in place.

**CHAIR**—This is part of your emergence thought: where there is activity going on, grab hold of that activity.

**Mr Graham**—Obviously we need to start with what we have on the ground in terms of existing programs and tools but also to recognise that perhaps they have been developed in consultation with the building and development industry, which does not necessarily like to see the kind of change that we are advocating or probably the speed at which we think it should be implemented. So there is a conservatism that needs to be appreciated.

**CHAIR**—You touch on many similar themes to the CRC for the built environment in Queensland. Is there collaboration going on between you? Is there a consensus coming up or are you muscling in on market share for the same piece of intellectual territory? What is happening there?

**Mr Graham**—Are you talking about the CRC for Construction and Innovation?

**CHAIR**—Yes.

**Mr Graham**—As a university we are not part of the CRC for Construction and Innovation, although—and I speak for myself here—I have had research collaborations with the CRC from RMIT. Within academia, the results of that kind of research are shared through publication anyway. As far as this submission is concerned, we have not collaborated with them. That there are themes coming out that are consistent means that obviously great minds think alike.

**CHAIR**—What is the relationship there? Are you guys like Balmain versus Penrith in a rugby league game?

**Mr Graham**—There is no competition as far as we are concerned.

**CHAIR**—However—

**Mr Graham**—There are no ‘howevers’, no.

**Mr King**—You would understand better than perhaps even we do that in academia there is great kudos and very tangible rewards for having interinstitutional collaboration, and that outweighs the rewards for competition. We do have a number of roles in projects that are run through the CRC, but we also have a certain tension in some areas. One example is air quality in buildings, which is one of the briefs of that CRC. They have a very active partnership with the CSIRO, but their projects have not come along very far. If you examined our activities in detail, you would find, for instance, that we have two or more submissions for ARC grants that could be construed as competing with them. But the reality is that in a country like Australia you cannot truly maintain that kind of attitude. You look much more for collaboration much more often.

**CHAIR**—Would I be right in assuming that they are looking for a better airconditioner when you are looking for better air?

**Mr King**—No. I must say that the very strong, constant pressure to be involved in product development, product commercialisation and other industry driven research does tend to make it look like what you have just described, that one is favouring the kinds of projects where perhaps a product is being validated or trialled. We tend to share that experience as well.

**Mr Graham**—You asked a question relating to our thoughts on implementation and so forth, and I had not quite finished answering. I spoke about energy efficiency and renewability. The difference between eco-efficiency and sustainability is that eco-efficiency means minimising impact and sustainability means removing the cause of impact and actually giving back to the system. Implementation of the ideas that we have already submitted involves amending the building code of Australia to increase its coverage of issues, moving on from energy efficiency through to material consumption issues; life cycle assessment of materials; eco-labelling of building materials; looking again at the so-called greening of NATSPEC; and supporting industries such as the timber industry to produce chain of custody information and an internationally recognised sustainability label for Australian timber products. Currently the Forest Stewardship Council is the only labelling system that is really recognised by any of the ratings schemes in Australia; therefore, it is possible that it is reducing demand for timber products, which could potentially be sustainable. There is also the National Australian Built Environment Rating scheme as a platform for collecting real data on the performance of existing buildings. That would be implemented through local government.

The final part of our submission is a suggestion for something new: monitoring and feedback. The implementation of that, which John and Ben can talk about later if you wish, will involve looking again at state of the environment reporting and making that reflect at least triple bottom line ideals, perhaps looking more at indicators of system performance and the systems approach.

**Dr Blair**—You raised a question about the administrative arrangements that may be needed to implement some of the previous witness’s suggestions. Correct me if I am wrong, but I think that Sydney at any rate already has the kind of administrative infrastructure that would allow that to take place. State government actually has a role at metropolitan government level because of its

various planning powers, for example. Let me take one of the key words that was used: integration. The integration of existing transport systems and future ones will be difficult—but not impossible, given existing administrative structures.

**CHAIR**—So in a sense they are not fully being exercised.

**Dr Blair**—Right. They are being exercised to a degree through the state environmental planning policy process and the regional environmental policies, and the statements that come from the former department of environment and planning, now known as DIPNR. Integration has to take place between at least three government agencies, but they are all at the state level. It should not be impossible to integrate them and to implement in an integrated way, but of course it will be difficult given that there are different pieces of turf to join together.

**Mr KERR**—I want to raise the issue of materials. You have mentioned some of those issues about the Building Code of Australia. We have heard some evidence about the absence of any substantial work on materials science in Australia and its environmental consequences. The submissions put to us are essentially that we should be moving away from specifications towards performance based outcomes and that there are new and exciting materials available—which, for example, sequester carbon dioxide in alternatives to traditional cement products, and things of that kind—that cannot get into the market because of the way prescriptive guidelines for materials are currently encompassed in the code. I was wondering two things. Firstly, what work is being done in materials science? Secondly, what is the way through the problem for a material that we have been given specific evidence on, for example, which is a patented new material involving an equivalent to cement that does not involve the problem of carbon dioxide emissions, which are latent in the production of cement products as they currently are in operation? Would you comment on those two things?

**Mr Graham**—Firstly, I would support the idea of performance based codes as a driver of innovation and a vehicle for bringing new material into the building industry. I would also say that new materials are only a part of the answer. In fact, there is really no such thing as a sustainable material, but materials can be used in ways that contribute to the sustainability of a building. So building design and how a building designer uses materials are also important to focus on. That raises issues of codifying at a local government level, perhaps by looking at design for deconstruction and the end use of building materials and by encouraging industrial ecology within the building industry as being important.

As for research work that is being done, the University of New South Wales has a department of material science and they would be better placed to answer the question about material specific research. There is a complete desert in relation to real research having been done on materials and their use in the building industry. For example, the embodied energy figures that are being used by some of the rating tools, and even tools currently under development, are perhaps five to six years old.

There are also issues about the methodologies used to collect that data. We really do not have any coordinated effort to collect life cycle assessment information about Australian materials, nor is there any need to as far as the kinds of regulations that cover material qualities at the point of sale are concerned. So, really, no eco-labelling is required for any building materials at all. The industries are self-regulating, which has got the timber industry into strife because of its

Australian forestry standard and the suspicion with which that is regarded by the environment lobby. That is reflected in rating schemes like green star and so forth under which you do not get any points unless you are using certified plantation timber or Forest Stewardship Council certified timber. So I agree with the perception that there is a lack of materials research about materials in use, and that includes existing materials and any innovative materials that come online. We do not really have a mechanism, for example, to test how that particular concrete product might operate in use.

**Mr KERR**—That is the problem that this gentleman raised with us. He has produced some tonnes of it and is now putting it out for ‘use at your own risk’ sort of application. If his claims are accurate it sequesters carbon dioxide; although each tonne of concrete that is used only has a certain impact, there are so many tonnes of it that were it to be applied globally you would get a massive change in sequestration.

**Mr Graham**—Cement production produces four per cent of the world’s total CO<sub>2</sub> emissions.

**Mr KERR**—Mind you, I would have a very rich constituent at the end of the day, too. But I have no interest, regrettably, in the process.

**Mr Graham**—But that does raise an important issue about the building industry as well. It is not just promoting the benefits of a new and innovative material; it is getting builders and architects to use it. For example, using cement alternatives which currently exist, such as blast furnace slag or fly ash, have flow-on issues as far as the speed of construction is concerned. If you are using fly ash or slag instead of cement or as an additive to a cement based concrete, it takes longer for the concrete to achieve its strength, which means you have to have formwork up for longer, which means buildings take longer to build, which costs more.

**Mr KERR**—The evidence of my constituent, which I am now advocating for your interest, reflection and examination because these claims need to be assessed, is that it has a faster setting time and reaches maximum design strength more rapidly than ordinary cement based products.

**CHAIR**—The broad issue he was raising was the general risk aversion to these new technologies and whether there is a role for the Commonwealth to at least be a pathfinder and separate credible, genuinely virtuous innovations from snake oil.

**Mr King**—I will make a couple of short comments on that which arise out of our submission but which actually address your question. Historically there has been an extreme shrinkage in Commonwealth investment in research in building technology and the promulgation of information about building technology from the heady days of CSIRO and the Commonwealth Experimental Building Station to now a virtually fully commercial CSIRO which actually guards commercial-in-confidence such things as the intellectual and operational basis of a rating tool which was developed by public funds, which would be completely unacceptable in the United States, for instance. The Commonwealth could obviously intervene at that level even before it begins to consider refunding the scale at which such operations occurred. This is extremely important because I am sure you have had put before you the idea that the building industry works in a particular way in which the people who make the decisions at the front end, who tend to be architects, have a huge multiplier effect and consequences by the time the building is

procured and enters its life. So, if they operate on poor information, you are going to have a huge multiplier on poor decisions.

Having shrunk the technical input of good information into the decision-making process for those people has played into another couple of aspects of the way that buildings are procured. So you have a positive feedback loop that is really quite dangerous. From the time a building is designed and marketed to its developer till the time it is actually able to be scrutinised for its performance is quite long. For a big building it is about three or four years. That is the window of opportunity to promote what you claim for the performance of a building and to get into the public mind what it is doing. So even in the best possible scenario, like I suppose Lend Lease with its headquarters, you have positioned yourself to do the right thing, you spend all that time promoting what you hope you will get until it is set in the public mind as your virtue and your kudos. You have a total disincentive and lack of interest in that being revisited and re-evaluated so that the information goes out to the other practitioners so that they can use what was effectively a prototype experiment to improve their practice.

**CHAIR**—No virtuous feedback?

**Mr King**—At the moment there is none of that feedback, which is one of the reasons why we so strongly advocate the general principle of capturing performance data, which of course has very specific consequences in things like the fight between the two major potential rating tools for commercial buildings: green star, which is effectively an offshoot of the Property Council, and the ABGR, which was developed by SEDA New South Wales and is embraced in Victoria in particular. They are conceptually different. Part of the reason why you would not hear the nitty-gritty of the fight between, for instance, those two is that, underneath everything, both sets of promoters, both sets of stakeholders, are actually on the same side in the sense that they are trying to improve the environment. They are not going to cut each other's throats in public, but it does deny people like you insight into the seriously different conceptual approaches.

One approach is being declaratory—get out the information upfront and get your rewards for that, your high ratings, and then not revisiting it. You do not revisit it for a number of reasons, including specifically what you mentioned—risk aversion. The engineer who does the calculations for the rating does not want to have it matched up against performance in case he gets sued.

The alternative approach, which is the ABGR in this case—we are talking specifically within our area of expertise—requires you to contract to monitor performance. You will not be penalised for not getting it but at least you have contracted to monitor it. What is the least consequence of that? Your building manager gets data on it and if something is going wrong they will go looking for the cause. In fact, we have experience here in Sydney that that is exactly what happens. A 4½-star building on ABGR got, from memory, 1½ stars in its first year of operation. They did not go out and sue the engineer. What they did was go looking for the part of the system that was going wrong and found that, in fact, there was a valve set on open. They thought it was the best thing since sliced bread that they got this feedback.

So there is a huge issue to do with feedback in that sense, and in the sense that a lack of appropriate captured data causes what I would call—and anybody involved in systems would recognise this term—positive feedback loops, but positive feedback loops that spin out with

unintended by-products. A terrific example of that is NatHERS itself, the best known of these, which is in the residential area. It has been known since the day after it was introduced that one of its effects was: the bigger the house, the less critical it was for it to perform well. That is because big houses have small surface-to-volume ratios and therefore they achieve the ratings easily, because the ratings were originally designed to deal with an equity issue, which is: do not penalise people who need big houses. So the indicator became rate of energy use per square metre, instead of rate of energy use all up. It has been known since the day after it started that that is a problem, but we have been unable to act on it because it is not a systematically captured—

**CHAIR**—Which tool is that one?

**Mr King**—NatHERS.

**Mr Graham**—Nationwide House Energy Rating Scheme.

**Mr King**—In New South Wales it has been running for five years now, in round figures, but its fundamentals have also been running in the other states. So we are really strongly pushing this idea of conjunction between investment and research, and feedback. Others might want to expand on the broader feedback issues—my expertise is in buildings, energy performance and so on. It is absolutely crucial.

If you will bear with me, I will point to a positive in that, BASIX, which was mentioned a moment ago. It claims virtue for a whole series of things, including its breadth—and I will not qualify that—but I would like to point out to you that one of its best features that you might wish to consider is that it is web based, which gives it two attributes. One is that you can try out what you are doing and get feedback before you commit yourself to the rating. That means that it is actually a design tool; it is that interactive process. The second attribute is that when you do commit to a rating it captures that data and ploughs it back into the database. The way it establishes its standards is by comparing to historical averages. So what might happen is that if you enter data on a new project up into BASIX and it becomes part of that database and it has had to exceed those historical averages, then very quickly you get the better form of positive feedback loop, which is that your standards start creeping up. You do not ever have to make a political issue about what is called bracket creep of ever rising standards, because it is built into the system.

Obviously there are other consequences and issues, even ethical issues, about data capture. But I would like to suggest to you that there is a model which, if it is pushed and if it is accepted politically that that is the sort of way to go, can achieve a lot of these aims and become a model, in a sense, for other kinds of properly informed monitored rating processes and therefore begin to put a very much more positive glow on the idea of mandated rating tools than currently is the case. Currently, part of the problem is that whenever something goes wrong with a mandated rating tool it is much more likely that the vociferous voices will be from people who will be pointing out the deficiencies rather than from people who will be promoting the general gains, so you get a very difficult environment for promoting those benefits.

**Mr JENKINS**—By way of comment, I think the design for deconstruction and for the mining of the materials at that point is a very good notion, but I want to go to the macro level of the

feedback. You made the comment about state of the environment reporting failing because it does not go to the triple bottom line. I note that in the submission you talk about community indicator programs which have got economic, environmental and also social wellbeing indicators. What actually interested me was that, when I then went to your footnotes, I realised that these things have been around for a lot longer than I actually thought. I had a discussion with the Canadians about their state of the environment reporting. They had just moved on from that because they were looking for tools that would assist in making proper decisions on the basis of sustainability. I am wondering if you might expand on these community indicator programs and on the types of examples that we might look at.

**Dr Blair**—The term ‘community indicator programs’ is exclusively used in the United States. In other places they might be called benchmark reports, with benchmarks for society, community, environment and the economy. In other situations they might be called triple bottom line reports. What seems to be a rather large gap in Australia is that the concept of looking at all three human activity domains together has not reached a formal reporting stage, with one or two rare exceptions which I think are largely restricted to Victoria but possibly to Western Australia as well. They are certainly not doing it in New South Wales at this stage. There is no reason why we should not, and in fact we ought to. We have an excellent basis from which to spring using state of the environment reports which already contain environmental indicators and, rather oddly, a social indicator connected with Aboriginal heritage. It is a rather strange mixture. What we would recommend is using that as a basis for generating a much broader based sustainability monitoring system looking at key aspects of all three domains. Key environmental indicators might be air quality, water quality and now, of course, water supply, an issue which perhaps was not on the cards five years ago. In the community domain we would want to look at income levels, and the parallel in the economy domain would be housing price, so housing affordability would cross those two domains. They are all integrated anyway.

If we are going to be serious about sustainability, we have to take a holistic view of monitoring it, and we can only monitor sustainability if we look at the representative indicators out for all three human activity areas, human spheres, human domains or whatever we care to call them. We are not really doing it in a meaningful way. I use the United States in the submission but in fact the proportion of local government entities doing that in the United States is incredibly small given that, of something like 29,000 local government entities, only about 300 are using this holistic reporting process. But at least it is holistic, and that is where we can take a significant step forward if we start applying it to metropolitan Sydney or Bathurst or Orange or Coffs Harbour.

**Mr Roche**—I will continue in the context of our submission and the discussion paper that you put forward. Essentially, we provide a key recommendation on monitoring and feedback because we believe that all scales systems should have feedback mechanisms and that we should be able to monitor those. We are looking at creating a whole system indicator program, so in that sense we are looking at evolving or building on state of the environment processes. John talks about state of the environment accurately measuring interaction within systems, but we are still plagued by the problems of silo thinking in that regard. What we are wanting to create is a holistic indicator program that looks at interactions within the systems, so in many ways we are talking about the culture of the system.



Within the context of the discussion paper, you refer to the need to improve livability within cities. We really look at livability being life satisfaction, wellbeing sorts of concepts. We should note that there is a divergence in the measurement of livability at the moment. We are looking at a concern with material conditions that constitute a livable environment, and these are still measured quantitatively. But we are also looking at a more subjective measurement, and that is a sensible life satisfaction. That is something that is only measured qualitatively, essentially. We have some experience: in 1995 the Australia Institute partnered with Newcastle City Council and tried to operationalise this concept of life satisfaction or wellbeing. They looked at having an indicator category of quality of community space. That was what we felt to be a first step in that direction. It looked at community satisfaction with regard to the quality of Newcastle's open spaces. So that is an example of an attempt that we feel is part of the way there but not the whole way there.

**CHAIR**—This is where perceptions of safety and those issues that you have mentioned come in?

**Mr Roche**—Correct, absolutely. There is a more detailed report and executive summary on Newcastle's web site.

**CHAIR**—It is a great segue into what I wanted to ask you about. The data presented to us is encouraging in that four out of five citizens aspire to be virtuous in their choices of purchases, behaviour and things of that kind, yet in consumption patterns alone seven or eight per cent actually behave in the way they say they would like to. Something we have been talking about for some time is the gap in information to let people know what is the best way to give effect to their aspiration to behave more sustainably. I am interested in what kinds of tools you are using to engage people and to inform them about more sustainable living choices that are helpful at that level but also are not going to turn their living standards on their head—for example, not being obliged to eat hydroponic bok choy sandwiches every day for the rest of your life. These are the issues. My strong sense is that we can do a lot better, and people are happy to do so, and maybe there is a greater role for us in supporting that choice by showing examples and illustrating what is helpful behaviour. Can you talk about the kind of work you are doing in that area?

**Mr Roche**—I might start, and my colleagues might want to add to this. A tangible example in terms of what I do particularly is run education outreach programs. To follow on from what I was speaking about, what we do is at every scale try and create that feedback mechanism. Say we are looking at the context of schools—how do schools themselves look at their performance with regard to sustainability and how do they get that data back, in terms of how they get feedback on their own actions? We are looking at encouraging, with this program in particular, things within the school context and also then within the household context—and looking at young people as the go-between or the conduit—and trying to provide some sort of data and some sort of feedback. The problem is that there is nothing in existence to really look at living issues. We focus on sustainable living.

**CHAIR**—We found one, and that is in the city of Port Phillip, where they publish a little booklet that goes to every household. I was encouraged to see that. I do not know whether it is the bee's knees, but it is a step in the right direction.

**Mr Roche**—There are very good guides and very good what we would call prescriptive indicators. What we are finding hard is, if a school does implement these kinds of cultural changes to their organisation, how do they then assess the effectiveness of those changes? That is something that we are finding hard to measure at the moment.

**Mr Graham**—From basic management theory, collecting data on performance and setting targets can be a motivator. John probably knows more than I do about this, but in places like Seattle that have more holistic sustainability indicators—for example, the number of salmon in the streams as an indicator of general urban health—gathering data is a community activity, not something that you read about in a book. It is not something that you have to do outside of your normal recreation. For example, you could have recreational fishers being part of a data-gathering process.

**CHAIR**—It is almost a celebration of their shared beliefs.

**Mr Graham**—Exactly.

**CHAIR**—You go out and get a part of it and get amongst it.

**Mr Graham**—It needs to be infused at that lifestyle level. So the issue of data gathering and allowing communities to understand what their initial impacts are and to be involved in setting targets and getting feedback is important. Also, on the city of Port Philip booklets and so forth, they will be read by the people who already have an interest in that area but, in terms of the busy urban life and all the rest of it, may not be implemented. There are tools that we have, like NABERS, which have a platform for gathering data on the yearly consumption of a household. While NABERS, particularly in its new form, is not flawless by any stretch of the imagination it does provide an interesting way of getting into people's houses and allowing them to receive feedback on their own performance.

**Mr King**—Just as an example—because I insist that I stay within my expertise—I want to put in front of you the notion that there is a very fine balance point between this 'rah-rah' promotion, this idea that you get particular feedback and that gives you the sense of achievement and celebration, as you called it, and a variety of incentives that might be built on that. If you will forgive the fact that this is a very particular example, in Taiwan they tailor the levies in the equivalent of our strata title developments by lift core—by multiple cores of very large buildings—as a rebate on the entitlement according to your score on the recycling volume as a proportion of the incoming volume of materials in a very simple way. It is a terrific incentive, but it also sets up a little competition by way of the form that actually declares your achievement in each lift—it is crude but it is rather fun. And again it can be used to generalise from, in terms of quantitative feedback on the one hand and then incentive mechanisms, some of which really are a zero cost to government—when you think about it, they just have to be set up.

I also want to point out that in Australia we have a very interesting tension between government from above and our illusion of our choices from below. We have seen that with lots of things, like seatbelts and so on. In the ACT, because it is a single jurisdiction, they seem to have no pain at all in introducing mandatory declaration of building ratings on sale and tenancy.

**CHAIR**—I was going to talk to you about that.

**Mr King**—Yes, it is an additional cost but you just have to have a current one, so it is not as if you have to do it every time. If, in the meantime, you improve something and you do not want to upgrade the ratings, that is your business—you just use your old one. The real estate industry spent about a year not realising what this all meant, and they blithely declared zero and did not think it would impact. Then they appeared to recognise that it did make an impact, so they turned it around and said: ‘A zero-rated house is terrific for starters. It can only be improved!’ They had no trouble at all coming up with ways of turning it into part of the incentive system for awareness for improved performance. In the end, there is no substitute for getting that awareness up in that kind of way. If you simply promote virtue it is likely to be as short lived as the promotion itself. If you build it in structurally in some way and—this is our constant thing about feedback—if you put the feedback in there, it will be self-sustaining.

I will use the ACT example for one more purpose. We have this almost intractable problem of how to get at the 85-plus per cent existing building stock as distinct from the minus 15 per cent new building stock in performance. We keep putting off what we are going to do because we cannot think of how to subsidise bolt-ons and home improvements and so on—it is too hard. Why don’t we start with something like the mandatory declaration, which sets up its own dynamics so that people are aware of where it is going and what is improving, and capture that data? At the moment, we do not have the data on how the 85-plus per cent are performing except from crude energy bills from the utilities—who, by the way, treat them as commercial-in-confidence so that researchers like us cannot even get at that data. So there are a number of issues here: what kind of data you capture, what is in the public domain and what is accessible for what purpose and so on—all of which you can take on board. But the bottom line in the end is that it is feedback, and that when it improves it can be celebrated—and that is your promotion, not the fact that you have told people that it is a good thing to do.

**Dr Blair**—I want to support that this is one way of crossing that very wide gap. There are other ways; some of them are not politically very popular, of course. Frugality is another way of doing it, but that is probably at the bottom of everybody’s priorities.

**CHAIR**—It is right up there with abstinence.

**Dr Blair**—Yes, something like that.

**CHAIR**—Gentlemen, do you have any closing comments before we wrap this up?

**Mr Graham**—One thing that was not raised in our discussion, in the absence of Dr Deo Prasad, and that needs to be reiterated is that encouraging decentralisation of renewable energy generation from the urban environment is essential. His research shows that it is financially feasible to do it on a large scale. It needs to be done on a large scale. I want to raise that issue so that it is recorded in *Hansard*.

**Mr King**—I would like to put that point in slightly different terms. I think its strategic importance is equal to its sustainability objective importance for Australia in terms of security of supply.

**CHAIR**—Distributed generation.

**Mr King**—Absolutely.

**CHAIR**—Thank you, gentlemen. We appreciate your time and your paper. If you have any moments where you think, ‘Aha—there’s an idea we should send in,’ please do so. We are always interested in people’s input.

**Proceedings suspended from 1.27 p.m. to 2.42 p.m.**

**DAVIS, Mr Chris, CEO, Australian Water Association**

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

**Mr Davis**—No. You have probably been bombarded in your hearings. I think what had to be said overall was in the written submission. I would like to pull out a few key points, if I might, just to try and get the discussion going. Then I would be very happy to respond to any questions that the committee might have.

I do not believe technology is really a barrier to achieving sustainability in the water sphere. We have very good technologies available worldwide now, and I think that one of the big issues in the water sphere, looking at sustainability, is that it is really the community will and the political will to move in that direction that is required. I feel that the rate of change in urban communities towards a more sustainable approach is too slow, and I would like to point out three things that we need to do.

The first thing we need to do is make a very strong move in greenfield developments towards more sustainable housing stock. One of the classic phenomena we see these days, certainly in Sydney, is the so-called McMansion, which is a house that is grossly oversized for the occupants and which soaks up an enormous amount of resources to build and to maintain. That sends a very weak signal for sustainability efforts. In New South Wales, for example, there is a new system called BASIX, which from 1 July requires every new home to have certain minimal attributes for sustainability. I think there is a great deal of uncertainty surrounding the whole initiation of that approach—the ideas perhaps got a bit ahead of the realisation—but that is the sort of approach that is warranted in future.

The other challenge is that the rate of change of the whole housing stock is very slow, because greenfield developments are only a small percentage of the total. So we really do have to look at trying to retrofit some fairly dramatic initiatives, to make our existing housing stock more sustainable. I do not have any magic bullets there. I suspect there probably has to be a basket of different initiatives of various sorts. I can touch on some of those in a moment, but they will all have to be brought in together to try to achieve some sort of sensible move in the direction of sustainability. Along with that there needs to be good assessment. We need to meter results in terms of sustainability in our cities, measuring the outcomes more effectively than we do at present.

What I alluded to in my written submission, which I would like to turn to again very briefly, is the fact that sustainability is not going to happen in any one sector or one dimension. It has to be an across the board move, and I think we have a lot of perverse incentives and a lot of communally accepted norms for the way we travel—transport, vehicles, energy consumption and so on—that are not sustainable and that we need to change.

There are two particularly strong points that I would like to make. One is that education is going to be very important, but it is not only a question of education in schools and the community. The practitioners and the decision makers also need education, as does the housing industry itself. Everybody has to be educated. My association believes in that very strongly. As I speak, my chief operations officer is doing a reference check on a candidate for a permanent education post, and we hope to try to facilitate national education in water and sustainability as much as we can. I sincerely hope the Commonwealth will help us in that regard.

There are a couple of initiatives that I think are quite positive. First, I trust that quite soon federal parliament will pass some legislation to mandate efficiency labelling for appliances in the 5A scheme. I think that is a very good step forward. The next logical step is to mandate certain minimum efficiencies so that you create a hurdle over which inefficient appliances simply cannot be taken. The other initiative I would like to mention—and I would like to leave some literature about it with the secretariat, if I may—is an initiative called the ‘smart approved watermark,’ which my association and three others have created. In that, we have set up a process whereby products, services and organisations that do not logically fit into the 5A scheme but that are doing things that conserve water can be assessed and given a logo showing a hand holding a drop of water. The first two products have been approved for that, and there are about 40 more backed up to be approved at the end of this month by an expert panel. I hope that those two initiatives are going to go some way towards helping people in the community actually understand what they can do effectively to improve their levels of sustainability and water. That is a quick round-up of some of the highlights. I am very happy to respond to questions or to discuss any aspect of my submission.

**CHAIR**—Thank you for your submission; it was a good read. I am interested in whether you can outline the kinds of pressures that your organisation is bringing to bear on the development approval process in general and whether you have formed any views about the scale of projects that would be needed to support triple plumbing and those kinds of things.

**Mr Davis**—That is difficult. My organisation has 4,000 members and, while I suppose in our industry we enjoy a certain amount of influence, on the national stage we do not wield a great deal of clout. We do try to have a dialogue with the housing industry and we have a WSUD—water sensitive urban design—conference coming up in Adelaide at the end of the year. We are also having, with the International Water Association, a sustainability conference in downtown Sydney. We do try to engage the housing industry in a dialogue, but we have not got terribly far down that track. That is something that is on our wish list, I guess, at this point.

**CHAIR**—We have been shown first-hand some examples in the Gold Coast-Brisbane conurbation. It was put to us that the size of the Gold Coast Water Authority, being a business unit of the Gold Coast City Council, enabled them to do things—in terms of triple plumbing, and even the use of the technology that was being installed—that are not easily done in larger cities like Melbourne and Sydney, where there is a disaggregation of that development approval supervision process. Is that a barrier in your eyes—you are interested in the whole water cycle, yet different jurisdictions have different influences on different parts of it?

**Mr Davis**—It is a barrier, because what happens in cities like Sydney, Perth, Melbourne, Canberra and Adelaide is that the water authorities are not the local authorities, so planning approvals are processed by the local authorities and the connections between the two may be

quite tenuous. I think the New South Wales government has taken admirable steps with its BASIX initiative in moving in the direction of a more coherent way of doing it. But the whole sustainability of water is bedevilled by fragmentation throughout—in the catchment and in the urban fabric.

**CHAIR**—An example we saw—I cannot remember the name of the place—had earthen swale drains and a range of measures designed not only to manage stormwater but to have that then affect the waste water treatment process and, in effect, the water consumption needs of the potable supply. It was quite impressive. They emphasised, ‘It’s handy for us, we’ve got all the bits under one institutional structure and we can talk to each other.’ It was put to us that that was very helpful. Could you talk a bit more about the block tariff proposition where there are step-up rates of charges. How do you see that being used more widely and how would you account for different household sizes?

**Mr Davis**—A block tariff is a debatable point, and it has been hotly debated for some years. Until quite recently the Independent Pricing and Regulatory Tribunal in New South Wales has resisted any suggestion that there is elasticity of demand in water prices. But they have—I guess under a certain amount of pressure from the government—relented. They are now considering it, and they have a discussion paper, which is very good. There are, I think, at least five urban utilities around the country that do use an inclined block tariff. One of them, perversely, goes down instead of up but the other four or five of them do actually rise with increasing consumption. The point of different household sizes has been made, and it is a vexed issue. It is hard to imagine that someone could apply for some sort of licence because they had a large family or a small family—to get dispensation one way or the other.

But the pricing structures that have been mooted are not dramatic. In Sydney at the moment there is 98c a kilolitre for water in the usage fee. The sort of price that has been mooted in the IPART papers is of the order of \$1.30—or maybe up to \$1.50—which is not so dramatic an amount that a family would be disadvantaged. I think the really profligate users in most communities are not necessarily large families but higher socioeconomic groups who have very large gardens, automatic systems, swimming pools, spas and luxurious appurtenances that simply use a lot of water—more than having five children in a household does.

**CHAIR**—As I understand it, a shortcoming of using that price signal would be the delay from the action and then the price consequence?

**Mr Davis**—Yes.

**CHAIR**—I have spent some of my life in the water industry and I understand the great shock someone would get when they got an excess water bill that happened to be processed three months after the excess water behaviour. It is as though that is more a punitive step after the fact than something that changes behaviour.

**Mr Davis**—That could be. It is interesting that there have been recent studies in Sydney and in Melbourne, with focus groups, looking at communities and their understanding of water use. What they did in Sydney, I am told, was take a sample from the upper quartile of users and interview them. Most of the people were totally unaware that they used a lot of water, because they had never actually read the bill or the meter. Some sort of change—to a situation where

maybe meters actually registered in the home—might be quite good so that you actually knew when you stepped out after a 30-minute shower that in fact you had used X litres rather than half or a quarter of that. It might actually send a signal. One of the conclusions from the research was that the message on the water bill was just as important as the quantum of the dollars in letting people know. You are right, probably a monthly bill would help.

**Mr KERR**—Sadly it is the case that one of the attributes of wealth is freedom from the petty concern of metering your shower water and your electricity usage. The idea that Kerry Packer, as he steps out of his shower, is going to concern himself greatly about the rate at which his meter has been flicking around seems to me absurd. I do not deny that there is some utility in pricing mechanisms, but we have to put them in context. When pricing mechanisms have come in, for example, the greatest savers have been large commercial users, and normally the cost to residential users has increased. Whether that is a good thing or a bad thing depends on your social attitudes, but it has not had the effect that most people who advocate water metering and increased prices have contended when they first put up these ideas.

**Mr Davis**—I believe water metering in Brisbane actually caused quite a steep change in consumption, and that was certainly the case when Hunter Water introduced metering.

**CHAIR**—But that was going from no meter to a meter, as distinct from pricing adjustments.

**Mr Davis**—Yes.

**CHAIR**—I accept your point, but I think Duncan is saying that, if you have metering to start with and then you use pricing measures as an application of the metering, it may be different to having no meter at all.

**Mr Davis**—I do not think a pricing signal can work alone. It is just one of the many tools you have to bring to bear, and it probably has no impact at all on the upper socioeconomic group. It is on the ordinary people, for whom a \$300 bill is more serious than a \$250 bill, that it will have an impact. Poor families probably need support whatever they do anyway. It is just one tool; it is not a panacea at all.

**Ms GEORGE**—How is the block tariff pricing proposal different from the notion of user pays above a certain base load?

**Mr Davis**—I think the idea is that you just try and encourage people to stay in a normal sort of band. The typical blocks are about 120 kilolitres, which would probably be for a single person living alone in a unit, and 240 kilolitres would be for a household with modest consumption. More than 240 kilolitres gets into fairly luxurious usage. Some of the block tariffs that I have seen operate in 220 kilolitre blocks. They send a message to people that, if you are getting near to the next block you are going to start paying more at the margin.

**CHAIR**—It is the precautionary principle.

**Mr McARTHUR**—I congratulate you on your paper. It is a very thoughtful and practical assessment of the problem as I see it. I would like to raise three issues. First, you raised the problem of firefighting water reticulation. Could you expand on what the problem is?



**Mr Davis**—It is strange, because a lot of us, including me, grew up thinking about water reticulation systems as being for supplying drinking water. In fact, in the United States and probably here to some degree, they were actually built initially purely for firefighting—it was incidental that they happened to be convenient for getting drinking water at the same time. So the minimum size for a domestic water main up a street in any city here is about 100 millimetres, which is actually much too big to have a good flushing system for fresh water, but it is what you need for firefighting. But if you go to the fire people and suggest that they should back off on their demand for pressure and flow they get very upset. A dialogue is happening now about trying to introduce things like sprinklers and alternative firefighting techniques, but that has not got very far.

**Mr McARTHUR**—What is your point? Are you saying that the whole system was designed around a firefighting requirement and that was too big?

**Mr Davis**—Yes, it was too big.

**Mr McARTHUR**—What is your alternative? You would have a smaller reticulation system. How would that save water?

**Mr Davis**—It would not save water per se, but it would require less water to maintain it, because if a big pipe does not get flushed out quickly enough you get stale pockets. You have to go out and flush water from it periodically to refresh the water.

**Mr McARTHUR**—What you are saying is that the maintenance of the total water reticulation system is the problem.

**Mr Davis**—Yes, it is more problematic, more expensive and less effective, because it has a big diameter. So you have the conflicting demands of high quality for consumers and high pressure to fight fires.

**Mr McARTHUR**—Where are you at in that debate now?

**Mr Davis**—It is going on. It has not been resolved.

**Mr McARTHUR**—If you had a greenfield site, would you put in a smaller system next time?

**Mr Davis**—What you could do, and what I think has been proposed and probably rejected by the firefighters' unions, is have a very small bore high quality potable water system and a bigger bore reuse system that feeds gardens, fire hydrants and the like. When that was mentioned, the firefighters said, 'Oh goodness, we don't want to be contaminated with reused water when we fight fires,' which was an understandable but irrational reaction.

**Mr McARTHUR**—You talk about rainwater tanks. Could you give us your assessment of the reality of rainwater tanks in the urban environment, looking firstly at size and having in mind the rainfall patterns in some of the capital cities? Are they a realistic option or are they just a passing fad?

**Mr Davis**—They are a realistic option on the east coast, where rainfall is pretty evenly distributed, normally, but they are not much cop in Perth or Mediterranean climates, where you only get winter rainfall and in summer you simply run out.

**Mr McARTHUR**—Would you put Melbourne in that category?

**Mr Davis**—Probably tending towards that category, yes.

**Mr McARTHUR**—So, with all this argument by government that you need this, how big a tank do you really need?

**Mr Davis**—That depends on the city and on the demand, but to make a real impact you probably need at least 5,000 litres or more. Putting a 5,000-litre tank on a quarter-acre block with a big house on it is a challenge.

**Mr McARTHUR**—So you are really starting to challenge the argument?

**Mr Davis**—I think a water tank is good and you get good spin-offs from having them, even if you do not actually save a great deal on the water supply. If you have a half-full tank and you have a storm, it actually collects some of the first flush off the roof and that does not go down the stormwater system and purge into the river.

**Mr McARTHUR**—But you are really challenging this general concept that, if every urban household had a water tank, that would solve a whole lot of problems.

**Mr Davis**—They are not a panacea either, unfortunately. I think on green field sites, larger blocks and with new houses they can be great but squeezing one onto a small domestic block and having an impact is unrealistic.

**Mr McARTHUR**—Maybe we should extend the debate somewhat. I am a farmer and I use a rainwater tank, unlike the chairman. I am a sustainable operator.

**CHAIR**—He is so good he lives off my rainwater as well.

**Mr McARTHUR**—You talk about hard surfaces. Do you have an answer for this whole difficulty of the urban population collecting rain on hard surfaces and it then running down into the rivers and streams? I saw a comment in one of the papers about a permeable footpath. Do you have any radical view on that type of approach?

**Mr Davis**—I think it is a good idea. When I fly into Sydney—or most cities—and look down, the two main areas I see are the roofs and the roads. Paved yards are actually quite minor. So collecting water off the roof is a good start and minimising road area is the next. We have quite generous street widths in Australia. I think it would probably be sensible to have narrower streets. You would also get traffic calming, because people would not be able to barrel down them at high speed. You could actually achieve a minimised run-off simply because the street area was smaller, rather than having the expenditure of going to a permeable surface.

**Mr McARTHUR**—So you would make bigger nature strips and such?

**Mr Davis**—Maybe a bigger nature strip would be an idea. My street is quite narrow but a couple of blocks along is a street that is twice as wide. That is unnecessary.

**Mr McARTHUR**—You would have a bit of trouble winning that argument though, wouldn't you?

**Mr Davis**—In European cities and Japan, the streets are so narrow you can barely drive down them, and they survive. I think we have a frame of reference that is accustomed to—

**Mr McARTHUR**—That is not because of water though; that is because of other things.

**Mr Davis**—No, it is just happenstance and history, but I think they are better off because they have narrow streets.

**Mr McARTHUR**—So you are saying you would narrow the streets, but what about having a more permeable surface?

**Mr Davis**—I think the permeability is good because then you can collect water instead of having it run off. But it is not widely applied. There is a model site in Manly on the beachfront that collects water from a permeable surface and stores it under the grass and then reticulates it to water the trees and there is also one near the Olympic site in Newington. But they are not very widespread, and I think the technology is still being developed and I do not know whether it is cost effective.

**CHAIR**—There is one in Elizabeth, South Australia where they run it through the wetlands and pump it back into the aquifer.

**Mr Davis**—ASR, yes. That is quite common in South Australia because they have good conditions for that.

**CHAIR**—With all the adaptation being carried out on domestic water systems—whether it be the addition of a stormwater capture tank or the diversion of one's washing machine water into the garden—I wonder, with an eye to the future, maintaining and ensuring that those systems are functional and properly maintained and overcoming the problem of stormwater being introduced into the sewerage system, if there is a case for all houses sold in Australia to have to produce a green slip that says, at point of sale: 'My plumbing, my stormwater and any adaptation I have done to the approved water systems in this building are up to scratch'?

**Mr McARTHUR**—Where does the stormwater go?

**CHAIR**—I will give you an example. Stormwater is illegally tapped into the sewerage system, and in Melbourne at the eastern treatment plant during a major storm event there is a sevenfold increase in the volume that needs to be handled. If you are wanting to reuse and recycle the water, a sevenfold surge in water just at a time when you do not need it is a problem. What are your thoughts on the green slip idea that would ensure proper connections, proper protection and that the stormwater tank has not deteriorated?

**Mr Davis**—I think you are dead right. We have had a paradigm—and I guess I was at the tail end of training in it—where at the end of the 19th century people realised the connection between disease and sewage, and they began to get sewage out of cities. The reaction was to create a system that was idiot proof, so you had to have sewers that were so big and so simple and on such a steep slope that whatever anybody chucked down it, it would not block. But of course those sewers leak chronically, which is why you get the 10 times or even 15 times average dry weather flow in a storm, which is very counterproductive. The whole ethos was that the householder was an idiot and the technologists had to design an idiot-proof system. Now we are shifting into a system where we give the householder more responsibility. But can the householder handle it? That is why authorities are quite reluctant to put in grey water systems—they fear that, out of control, the grey water system is going to contaminate the neighbour's yard.

I think we need to have a middle ground, and it also goes to the heart of the paradigm for the business model for a water utility that only supplies water and takes away sewage. We need to have a paradigm that says they can supply all the services that surround water supplies, which could include supplying and maintaining a rainwater tank, pumping out sewage and treating it and reticulating recycled water. We have to come back to a sort of halfway house, but your point is a good one, and there is a program that I think is called SewerFix that is being promoted.

**CHAIR**—Where is that?

**Mr Davis**—It started in New South Wales but for various reasons it never got up. The idea was that when you sold a property you had to have that connection vetted because audits have shown that half the infiltration occurs in that length and only the other half comes in the main sewer system. So it is a very good idea to have shared responsibility, preferably with a service model that says, 'We can do anything that we need to do to supply you with the service and not just dump the water on you and take the sewage away.'

**CHAIR**—It was put to us that it was doctorate level technology in a *Big Brother* household. They are not focused on keeping it achievable. A related issue, and one that goes to questions of retrofit, is that we have a model around Australia where we have Boeing size water treatment and water harvesting systems. What is the scope or the argument for breaking down the metropolis-wide systems into smaller areas which may have the scope of capturing the stormwater and processing that and making it available in a region for public park irrigation? Could it be done in a compartmentalised size rather than having system-wide change which would be ballistically expensive. It would go partly against your point that here we are talking about rainfall coefficients off hard surfaces when you might think that capturing more of it might be a good thing if water shortage is a concern, but having it treated and available back in the system is the task. So I am talking about a compartmentalised retrofitting of the infrastructure.

**Mr Davis**—I think there is a lot to be said for that. Retrofitting is a big challenge and, as your colleague mentioned, the challenge of rainwater tanks is that they are not that cost effective in an urban domestic setting. But if you had decentralised areas where a little neighbourhood catchment of 50 to 100 homes had a communal catchment system that collected and stored water in a cost-effective tank, and also collected their waste water, you could retrofit a low-pressure small-bore pumping system very cheaply because they do not have to be put on slopes and in deep. They can follow the grade and they can be fitted quite cost effectively. You could then treat

the sewage locally, you could treat the stormwater locally and you could reticulate them both back into the community at a reasonably affordable cost.

**Mr McARTHUR**—Would you water guys agree with that general principle?

**Mr Davis**—Not all of them; some of the old guard would not but, in principle, yes.

**Mr McARTHUR**—At some of the other inspections we have had it has been reported that there is a strong resistance by the water and sewerage authorities to any internal local reticulation as you have described it.

**Mr Davis**—Yes, there is resistance and I think that is often a cultural thing and a fear of change. I also think it is about a loss of control.

**Mr McARTHUR**—Are you saying that there are colleagues of yours, though, that are agreeing to that concept?

**Mr Davis**—Yes, indeed, very strongly. CSIRO has an urban water unit that has been working for five or six years now. They did some quite sophisticated modelling and they concluded that there is an optimum economy of scale achieved somewhere between 2,000 people and 10,000 people in a system, whereas the conventional wisdom that we all grew up with was that the economy of scale was as big as possible.

**CHAIR**—Two million!

**Mr Davis**—Yes. In fact there has been some work done in the UK where they could find no economies of scale in water systems at all; it was neutral.

**Mr McARTHUR**—Your comments are very encouraging because in two or three of the inspections we had there was a very strong view put that people in your position would not agree to the local performance.

**Mr Davis**—There is some resistance—for instance, in Sydney Water. I was told by top management that they wanted to introduce a different form of sewer and they were resisted very strongly by the technocrats in the middle who said, ‘No, you can’t do that. It’s not the way you do it.’

**CHAIR**—The ‘General’ is also referring to technology innovation where, in designated water authority areas, if you were Delfin or somebody and you wanted to put in a package proposal and then charge your residents for the actual operating cost, the sewerage authority might have no demand placed on them whatsoever, but they will still want to rate the properties and they will still want you to build in all the infrastructure in case your package solution goes pear shape and they are left to mop up—to use the nicest term that I can think of to describe what they were describing.

**Mr JENKINS**—What is the best way to influence those companies to change?

**Mr Davis**—The water utilities?

**Mr JENKINS**—Yes.

**Mr Davis**—An interesting example is the submission by Services Sydney to the National Competition Council, which closed last week, to have access to Sydney sewage to recycle it. I suspect that that is not an economic proposition, but the principle is a very interesting one. I know that the Sydney Olympic Park people have always been very frustrated that their desire to expand and develop their system has been resisted by Sydney Water. There is always an element of empire building and there is also the fear of stranded assets—that if you suddenly have part of your network gutted, your capital structure is ruined because you do not have the revenue stream anymore.

**Mr McARTHUR**—Where is the public debate in that Olympic Village expansion argument at now?

**Mr Davis**—It is moving along. If I characterise the two debates, the firefighting debate is a bit stagnant but the living village and decentralised one is going quite well.

**Mr McARTHUR**—There is intelligent comment on both sides?

**Mr Davis**—Yes.

**Mr McARTHUR**—It is not locked into a traditional arrangement?

**Mr Davis**—No, there is room for change.

**CHAIR**—There is also pressure from urban consolidation where you have sunk investment in your network that has capacity problems. You either go back and rip out the four-foot pipe and chuck in a six-foot pipe or you look for some other decentralised proposition to accommodate the change in catchment, demographics and population.

**Mr Davis**—That is exactly right. I think Chatswood, north of here, is a case in point. You have an area that has grown over 30 years from a suburban area to effectively a third metropolis or a third CBD. That has placed huge pressures on infrastructure. That really needs a lateral approach to solving the problem rather than trying to go the traditional way.

**CHAIR**—What about infrastructure pricing? What happens if you are the last bunny in town and the water authority tells you they are at pussy's bow with capacity in their infrastructure—'Sure, you can have your subdivision, but it will cost you \$11 million to retrofit the water and wastewater infrastructure, because you are at the end of the trunk line,' and all those kinds of arguments? Are we getting smarter about spreading those asset constraints across the entire client base rather than making the last person to turn up carry a huge share of that burden?

**Mr Davis**—That is a difficult area. There have been all sorts of artefacts of history in a place like Sydney. When they sewered Sydney, largely after the Second World War, a lot of areas were just too difficult, so they did not bother. Sydney expanded and the sewerage reticulation was installed almost universally but there were a lot of areas that were just untouched simply because they were technically hard to tackle. They have been left behind. They have been penalised.

**CHAIR**—The killer rising main!

**Mr Davis**—New areas also tend to be either penalised or advantaged. Sometimes from a utilities perspective there are areas that should not be developed at all. The state government would give an approval for a development from an economic point of view whereas from the sustainability point of view you might say it should not. That is one argument. The other one is that when developers have done all the sustainability things they then take a case to the utility to be given a price break on the capital contribution. They generally have not been given one so that has created some resentment. One of the reasons why sustainable developments have been held back is because they have not been given credit for what they have contributed to the ongoing diminished cost.

**CHAIR**—So your tariff issue is also about pricing.

**Mr Davis**—Yes, and capital contributions.

**CHAIR**—And that would go to grey water reuse. In the metropolis I come from it is take or pay contracts, which makes them about as popular as a rat under the house. As there are no other questions, I thank you for your time.

**Mr Davis**—I have brought some literature if anyone is interested. I will leave it with the secretary.

**CHAIR**—Yes, please. We accumulate input at a vast rate. If you are driving back and you have an ‘aha’—that is, a brilliant idea—you are busting to tell us, then please do. We are always open to input. Thank you for your submission.

[3.16 p.m.]

**STEPHENSON, Dr Lorraine Carmel, National Manager Sustainability, Origin Energy**

**CHAIR**—Welcome. 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 the proceedings of 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, are there any introductory remarks or opening comments you would like to make in support of your submission?

**Dr Stephenson**—Origin Energy put forward its submission at the end of last year. It is interesting, looking back on it, how dynamic this area is when at the same time we often think that there is not a lot of forward movement. It is actually quite active. One of the things that we have put together for you today to have a quick look at, and I will not go through it in any detail, is to try and explain why Origin has a strong interest in sustainability. It is interesting because there is a lot of work going on at the moment looking at the future, particularly the decade after 2020 and beyond. As you will realise, our focus for today and for our submission is very much on energy and its contribution to a sustainable world. We have tried to explain why energy is an important component of sustainability. It is not only because of greenhouse, but greenhouse is one of the major drivers for why people are now very interested in what our energy supply and demand applications will be. From an Origin perspective, one of the issues for us is very much about some of the government agencies' forward projections on two levels—two conflicting areas, in fact. One area is that of forward demand, which ABARE has said will increase perhaps 50 per cent from 2000 to 2020. That is rather daunting, a 50 per cent increase. The other one is that the AGO—the Australian Greenhouse Office—has projected that our greenhouse emissions will grow dramatically from today to 2020.

For an energy company, one of the things we battle with is how on earth do you supply the energy to meet the growing demand while, at the same time, trying to reduce our greenhouse intensity. For us it becomes an issue of sustainability because we believe very strongly that energy is not a luxury, it is a necessity of life, and that everyone has a requirement to have access to affordable energy. We grapple with those sorts of issues on an environmental level, particularly from a greenhouse perspective, We also grapple with it from a social dimension due to our responsibility to more than two million customers and how we can supply those customers with energy at an affordable rate. At the same time we also try to combine those environment and social responsibilities with our economic performance. We try to provide choice for our customers. If you want to buy the cheapest product on the electricity market, for example, then we try to be as competitive as we possibly can be, but we also offer the full range of cleaner alternatives. We offer 100 per cent wind or 100 per cent solar if you feel so inclined.

Obviously, we are not determining which way customers should go in terms of their ability to pay that premium, but we provide as much information as we can to try and draw that link, if you like, between the environmental impacts of electricity in particular, because they do not see it. It is a matter of flicking a switch and they do not see the upstream implications of using that energy. A lot of our work is focused on leveraging our two million customer base to provide that



sort of information, on both the energy efficiency side and the understanding that the supply does come from a range of options but that primarily today it is from fossil fuels. For us it is very much about how you restructure both the supply and the demand side with good integrated planning as we go forward. That is where we sit.

**CHAIR**—There has been a lot of discussion about renewable energy, price projections and a perceived narrowing of the price differential between coal sourced generation and renewables. Is that statement in your submission about the narrowing and the timetable for convergence still relevant or has that taken a different look?

**Ms GEORGE**—And what modelling was done to come to the conclusion that by 2015 the cost of solar power would be roughly equivalent?

**Dr Stephenson**—You would have noticed that we focused on solar in that model. That work came from international work, which was presented at the Osaka PV conference last year. It looked at the cost reductions with the cumulative growth. It was not our modelling; it was taken from some international work. One of the things it illustrates is that when internationally there is discussion about solar PV being cost competitive today, it all depends on what your underlying price for electricity is. So we have tried to indicate that, for example, the base price in California or Japan—or Europe, for that matter—is quite different to ours. When we extrapolated that graph—the Japanese target was the 2010 crossing of the line with the Japanese grid—our projections indicated that it would therefore take until at least 2015 on the same sorts of dimensions for a scale to reach the Australian grid.

The other question on closing the gap—and one that we grapple with a lot—is not just the underlying price of, say, the black electricity supply but whether there is a carbon signal. That is one of the major issues that Origin faces: will the externalities of the electricity supply be in fact costed? We would argue very strongly that many of the benefits of solar are not actually reflected in the way that people do those comparisons. Another point is that it is also quite difficult to reflect that in the way that the comparisons are done. If you compare centralised fossil fuel, large-scale generation with delivered electricity to the home, which is the case with solar PV, you have to be careful in comparing a wholesale price at the generator versus a delivered retail price because there are a lot of other costs in between in that chain.

The final comment is that, yes, we do see a closing of the gap. Wind technology is reducing in cost in Australia. Some of that is to do with variations of exchange rates and other matters, but it is also to do with scale. We are seeing in Australia a reduction of somewhat under 10 per cent—but a real noticeable reduction—over the last few years of the solar PV rebate program. That has resulted in some cost reductions that have been passed on to our customers.

**CHAIR**—Can you give us a feel for the negotiated scope of electricity pricing for a major industrial user? I find it very hard to peel away the garbage that is often spoken around impacts of renewable and the like on major industry users when competition has given huge scope for negotiated tariff regimes that bear little resemblance to the headline published price of electricity. Can you give us a feel for what that scope looks like? If I were an aluminium smelter and you wanted my business, what kind of discount on the published domestic price could you possibly give me to attract my business?

**Ms GEORGE**—It would be a sourcing base load at a substantial discount, wouldn't it?

**Dr Stephenson**—I am not sure that is a question that is easily answered. As to what is available in the public domain, I do not have the information to date, but the wholesale prices are available. The discount to someone like an aluminium smelter would be on top of the nominal wholesale price. The tariff price, as I said previously, is a retail price which includes all of the other costs associated with it. It is very hard to compare them. One thing I could send you, though, is a report that we had commissioned with McLennan Magasanik Associates, whereby they compared the wholesale price for Australian industrial customers and for residential customers versus counterparts overseas, and they did some ranking.

**CHAIR**—We would appreciate that.

**Dr Stephenson**—One thing that would come out of that is at least the relative, ballpark figures for the industrial versus the retail customer. It is quite a bit of difference. A retail customer generally might be paying 13c a kilowatt hour, and an industrial customer would be a very large customer. There is an order of magnitude difference there of about four times the price. One issue going forward is that you have an ability around the margins to structure your costs accordingly across the whole portfolio of customers. You have to be able to do that between the retail customers, where there is a set tariff, and the customers at the lower end of the usage, where it is contestable. That would go from the small businesses and the small and medium enterprises through to the larger commercial and the industrial customers. An aluminium smelter usually has its own category.

**CHAIR**—So arguments around increasing renewable energy and an almost uncontested impact on prices for large users are pretty difficult to sustain because there is such a different range of behaviour and experience across those users?

**Dr Stephenson**—Yes. It is possible to do an academic analysis of what an overall cost would be and then to spread it across each customer category.

**CHAIR**—Notionally.

**Dr Stephenson**—Notionally. One conclusion you reach very quickly is that as a percentage increase it will be substantially higher if you are a large industrial user than if you are a residential customer. On a percentage basis, it has to be, given the numbers that we just talked about. But those costs may not be spread evenly across the whole of your customer portfolio. It may well be again simply a negotiated price, so that gets built into that overall cost. Again, I will make sure I forward the MMA report because they looked at that. One thing that a lot of the modelling work does is take a particular policy mechanism and develop an overall cost for that. Then they are able to spread that across the market, choose two categories—the smallest and the largest users—and then look at that impact as a percentage. I think that is where the concern is in the industrial sector: it is seen as a high proportion cost increase that would occur. But, as you point out, it is probably more of a negotiated rate than even a nominal smoothing across the whole market.

**CHAIR**—Yes, particularly as your corporation in particular are offering yourselves as energy solution providers, where there is a mix of energy types from different generation sources

powering through a whole suite of appliances that you offer. It complicates things even further when you go to a customer with that range of possibilities.

**Dr Stephenson**—It does. Also, for our business, we have electricity, LPG and natural gas. One thing that has focused our attention in recent years is looking at how you look at that suite of products and the applications, at what fuel switching may occur in the future and at what the drivers for that fuel switching may well be. So, if there were a cost to carbon, would there be a greater uptake of space heating using gas—for example, if you lived in Victoria—versus electricity? Where I live, in Queensland, we do not really worry about that too often, but in some states you have the choice of electricity or gas and it starts to drive the decision making one way or the other.

One of the other comments we would make is that in looking at appliances it is quite difficult to get consumers to look at the overall benefits on a whole-of-life-cycle basis. Traditionally, when people come into our gas shops they are much more interested in what the colour is and whether it fits.

**CHAIR**—Stainless steel fronts and how spunky they look.

**Dr Stephenson**—Yes. Those sorts of things are important. One of the comments we would make is that we have to look at the full economic impacts and not just the emotional responses. It is about not only education but also making the more eco-efficient products look good.

**CHAIR**—Making them sexy as well as making them—

**Dr Stephenson**—Yes. That they have all the attributes, not just the ecofriendly ones.

**Mr McARTHUR**—In your submission you talk about wind capacity at Codrington, Chalicum Hills and Yambuk. Could you comment on Professor Bellamy's very strong critique of wind farms and the argument that the energy generated by wind farms in the summer is not available when you most need it for airconditioning?

**Dr Stephenson**—I am sorry; I cannot comment in a lot of detail on that specific issue. As a purchaser of wind power from the Victorian wind farms, we have found, though, that it has met all the predictions in terms of its operations. One of the important pieces of modelling work will be determining what the overlay is between the delivery of energy from wind farms and other renewable sources and the demand for peak power. I do not have information with me but I can source that through the company if you like. But certainly the performance of the wind farm is as predicted. One of the reasons I am hesitating is that I am not really sure of the relation between comments in the UK versus southern Australia. It may well be that our climate is more ideal than a Northern Hemisphere climate.

**Mr McARTHUR**—There is always wind at Codrington.

**Dr Stephenson**—There is always wind at Codrington, yes.

**Mr McARTHUR**—So you are saying that the suppliers have made a prediction and they have supplied power on those predicted paths. Does that suit your requirement because it pulls in the grid?

**Dr Stephenson**—Yes, it does meet our requirements. The other advantage of Codrington is that it was the end of the line, so it does meet the local needs of that network. It satisfies the requirements of something like 14,000 homes in the local area. From an Origin perspective it is predictable in terms of the expected pattern of supply.

**Mr McARTHUR**—What does Origin say about the local environmentalists who are a bit upset about the upset to the landscape and other matters?

**Dr Stephenson**—We spend a lot of time on community consultation for all the obvious reasons as we are also interested in building wind farms in addition to our power purchase agreements. It is quite a complex area because there is no consensus. Everyone has a different point of view, probably depending on their proximity to or their aspect in relation to the wind farm developments. My personal experience has been rather limited although I was fortunate to be at the Codrington opening. I listened to the community response there. Perhaps it was the first one or perhaps it was very modest but the experience of Codrington was in fact very positive. We have found in going forward in South Australia that there are small pockets that are very opposed to wind farms, but it is a small proportion. Most people are—

**Mr McARTHUR**—There are some pretty strong views along the southern coast, the Great Ocean Road and Gippsland, as I understand it.

**Dr Stephenson**—One of the things that we have realised is that you have to be sensitive to those sorts of concerns. There would be genuine concern if there were wind farms right along the Great Ocean Road.

**Mr McARTHUR**—Did David Bellamy's comments come across your desk?

**Dr Stephenson**—I have read them but I am not familiar enough with them to comment on them today.

**Mr McARTHUR**—Do you think you can refute them, though?

**Dr Stephenson**—I am certainly able to source some information to help you with that.

**Mr McARTHUR**—It is a fairly strong argument he puts up, coming from that source.

**Dr Stephenson**—Yes, that is true.

**Mr KERR**—I have been an interested observer in many ways, coming from a hydro area. I have been sitting here quietly absorbing information. There are some specifics for a state that has a different pattern of power generation. Now there is the addition of wind power and the cable across Bass Strait. Some of these issues about coal-fired power supplied through the Basslink is also now becoming material but I will excuse myself from cross-examining you because it is not in my normal area of expertise.

**CHAIR**—I would like to talk about the issue of peak electricity demand. Your company did some quite illuminating work on Adelaide's heat surges, the drain on the power supply and the performance of photovoltaics during those moments. What is your sense of the opportunities to link airconditioner use to a bit of love to boost up the network, such as by a contribution towards PVs? I think San Diego do something like that: if you want an airconditioner you either pay a stinking great fee for the privilege or put up some PVs to help power the thing. What is your sense of where that will head, given that your company is faced with huge costs to create generation capacity that is spasmodic at best to meet those peak high demand moments?

**Dr Stephenson**—I think we are seeing that peak demand for electricity in most of the states is probably one of our most critical short- to medium-term issues. Traditionally that demand has been met through gas-fired generation, and Origin has been a participant in that market, as you know. We are looking at two approaches. One is to shave the demand, which is counterproductive to putting in more airconditioning units because that is in fact one of the things that are driving the additional demand. We saw last summer that that was exacerbated by the higher temperatures. I live in Queensland and we had weekends of 42 degrees, so everyone was very keen on airconditioning at the time. There have been very cynical comments. In fact, from some overseas experience, having to match the peak demand of airconditioning units with some alternative source of supply, being a PV unit, would make it quite an expensive exercise.

The lower cost of airconditioning units is one of the things that is driving the uptake at the moment, so it would be interesting to see whether that perverse incentive would in fact curtail the uptake. The opportunity for solar PV is very strong in this market because it does overlap quite well with that peak demand, particularly in some of the southern states that have daylight saving, for example. So there is a real opportunity to do that, but the issue is that if it were purely voluntary the cost would prohibit it as a solution, so where would you go with mandating such action? If you come back to our view of energy being a necessity of life in affording comfort to a family, it seems rather an impost on a very hot weekend when someone makes the decision to put in an airconditioning unit to say, 'You've got to provide the additional supply yourself,' which is another \$5,000 or \$10,000, or perhaps even more. The other thing is that the power output of a solar PV panel is often much smaller these days as against the scale. It is the kilowatts in the airconditioning units that people are putting in: they are no longer quite small; they are very large.

**Ms GEORGE**—So what is causing the failure in the system? I thought that with NEMCO, the integrated national system and connectivity between the states we were going to ride through the peaks and the troughs, but it seems to be getting worse, even though we have this supposed integrated framework that it is operating.

**Dr Stephenson**—The integrated framework has certainly helped to build the base load and the intermediate requirements, but it is the very strong peak load that is growing much faster than expected. For example, in Queensland, somewhat surprisingly, there is a very low penetration of airconditioning units—I think it is only about 30 per cent—but it is estimated that within the decade, particularly in south-east Queensland, it will be 100 per cent. That was not foreseen in recent years, so what we are seeing is a very dramatic uptake in all of the capital cities in particular, and probably in the regional centres. You are talking about a few hours, maybe 20 to 30 hours, a year when that overall peak supply is needed, so it is a very small part of the year. But there is also a cost in being able to meet that.

It is also about a system being finely tuned. If one of the major plants is down, there is of course a more serious concern. Overall, at the moment, it is being largely met by gas-fired plant which is on standby for the rest of the year, so it just switches on when peak demand is required. That is satisfying current demand, but it will not if the projections for the uptake of airconditioning units are real. From our point of view it gets back to other issues, such as the good design of buildings. Are we creating a trap in having poorly designed buildings which in fact require that level of airconditioning use? It may be that we have gone through a cycle which was not identified until recently and we have realised that the planning codes have not supported the requirements of the buildings in terms of their resource use.

**Mr JENKINS**—Your supplementary information is very upbeat about the use of solar photovoltaic systems, which I find very interesting. I want to go directly out of the supplementary information and back to the original submission to where you have a discussion about whether renewable energy generation should be promoted at the single dwelling level across city regions. That is an interesting discussion, because, if we reflect upon what the previous witness dealing with water said, a lot of the thing is that the utilities can really get down to a community level and perhaps get a better outcome by aggregation. That conjures the fact that aggregating in a community or neighbourhood has never been put to us. We always talk about what somebody can do in their own single dwelling, and you explore some of the reasons for that in your original submission, but I wonder why we have never explored this. We have the opportunity, when we go to a greenfield residential subdivision, to perhaps do something innovative or even when we retrofit it should be possible.

**Dr Stephenson**—It is one of the areas that Origin is looking to explore further, particularly with greenfield developments. There are a few at the moment that are seeking to provide both energy and water on a different basis. Whether it is self-sufficiency in terms of the community, whether it is self-sufficiency in terms of the household or whether in fact there is backup with energy from the grid as well are all issues that are quite open for discussion today. It is an area that we, as a company, would like to take forward with various governments, because it is not as easy as making a decision based on a particular new development. There are actually a lot of regulatory requirements that perhaps counteract the sorts of decisions that you might make on those options that could be available to you. We have made a comment in the submission that it is very effective looking at single dwellings but later, at another point in the submission, we do talk about an aggregator. One other comment would be that energy is not a huge, high interest activity for most people. They simply want energy that is there when they are need it. It is very difficult to engage them as to the options, so you are obviously better off looking at a new development so that you have the opportunity of setting it into the integrated planning of that new greenfield site and of engaging perhaps with a particular type of person that may wish to live there, because most people do not really engage.

**CHAIR**—However, your boss said at a conference I hosted that when he got his PV system he would sit there and watch to see which way the meter was going and that it had a terribly disharmonious impact on his family life because he spent his life watching his meter to see whether he was buying or selling electricity.

**Dr Stephenson**—That is one of the things that you do observe. I had another high profile senior businessperson talk to me recently about watching his PV system. It causes you to be aware of the resource that you use. In fact, I have a rainwater tank at home—and I was interested

in the previous proceedings in Brisbane—and it has not rained since I put it in, but I am very keen on actually watching it and understanding it.

**CHAIR**—It is a bird-hide at the moment.

**Dr Stephenson**—Yes. We hear from many customers that once they have a solar PV system they inherently become attuned to their energy needs. They actually understand the flows, the total energy use of the household and leakage of energy, and they are frustrated by that because they are not optimising their own financial situation as much as anything else. So it does come back to providing signals to the end user that are meaningful but also, as you say, having a community that works in a particular way. I think that what we really do need is a working model so that we can have a look at some of these new opportunities going forward.

Part of the battle is that most people focus on the up-front capital cost, whereas the ongoing operating costs are extremely low. If you had a well-designed residential development that had solar PV or solar hot water and it was solar passive in terms of its design, you would actually have a very low ongoing energy bill. That can then be an incentive for the up-front capital because you will find financial services that are offering good loans for eco-houses, which could be quite beneficial.

**CHAIR**—I have one last question. We have heard that people buy cars knowing what they are going to cost to run, yet you guys are notoriously difficult to get information out of concerning the cost of running particular homes, households and the like. A comparison is drawn between what happens in the rest of the country and what happens in Canberra, where the cost of running the dwelling you are selling is a point-of-sale piece of information. Would Origin Energy be likely to provide fulsome support if we thought that the cost of operating idea should be taken further?

**Dr Stephenson**—Yes, we would support it. In fact, one of the things we are doing under our social hardship program is working with various providers to do the sort of home auditing that allows those that are most disadvantaged to reduce their bills—so they are very attuned to what it is costing them—and then to provide low-efficiency appliances or other options.

**Mr KERR**—High-efficiency appliances.

**Dr Stephenson**—Sorry, yes—high-efficiency and low-cost. Thank you for correcting me.

**CHAIR**—That was a hydro moment there, if you are wondering.

**Dr Stephenson**—We are working very hard to try to ensure that all of our customers have that sort of information available to them. So we would be most supportive.

**Mr JENKINS**—This is the last sheet of the supplementary stuff. There is a critique of the stop-start nature of support for matters to do with PV and the need for a longer-term vision. I would just ask this question: there is not a problem with the style of rebate and things like that, is there? It is really just the overall quantum that is put forward and the fact that it now has an end date of 2005, isn't it?

**Dr Stephenson**—Yes, it is more about the fact that it has not been a long-term program. We have had four years and then—

**CHAIR**—The cash ran out.

**Dr Stephenson**—To be very fair to the federal government, it was a very successful program. In fact, the success was what almost killed it. Each time there has been uncertainty about the funds that are available or cutting back on them, the program has died to some extent and they have had to pick up again. So we are back at that stage. At the moment there is no forward announcement.

**CHAIR**—Was it three years' funding that ran out in eight or nine months or something?

**Dr Stephenson**—Yes. The dollars seem to be sufficient to drive the market and we hope that with that uptake the overall cost will reduce and therefore it will be self-perpetuating. But it is really the uncertainty of the program given that there is no forward life at the moment.

**CHAIR**—We appreciate you making your time available and we will look out for that MMA material coming through.



[3.48 p.m.]

**LAIRD, Dr Philip, Chair, Government Relations, Railway Technical Society of Australasia**

**LAIRD, Mr Martin, (Private capacity)**

**WATSFORD, Mr John, National Chairman, Railway Technical Society of Australasia**

**CHAIR**—Welcome. 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 warrant the same respect as the proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as contempt of parliament. On that bright and cheery note, are there any brief statements or introductory remarks you would like to share with the committee?

**Mr Watsford**—Thank you for the opportunity to present to you. The Railway Technical Society of Australasia is a technical society of Engineers Australia, which used to be called the Institution of Engineers. The Railway Technical Society has about 800 members Australia-wide, mainly based in the capital cities. We arrange the publication of technical papers, we have study tours and we host a conference on railway engineering that is held every two years. The next one is in Darwin in two weeks time. The technical society obtains funding from the members of Engineers Australia and we support education and research. We look particularly for a balanced policy from government for road and rail funding. We provide a lot of networking through our meetings in each of the capital cities. They are generally held monthly. They are mainly made up of engineers and others interested in the railway industry in Australia. Philip Laird is the chairman of the government relations committee. He is the one who prepared the submission to you. Martin has a vested interest, of course, in all the findings, because he is the one that has to live with them.

**Mr McARTHUR**—You need help!

**Dr Laird**—I might add that Martin also helps to compile these brochures. Here is the very latest one.

**CHAIR**—He is the techno horsepower!

**Dr Laird**—He is the man who says, ‘Dad, take these words off the front cover and put some more pictures and graphs on.’ I would like to table the latest brochure. Cities are only sustainable when their transport is environmentally sustainable. If we look at Sydney from 1991 to 2001, a space of 10 years, the population went up 10 per cent, the number of households went up 15 per cent and the number of cars went up 20 per cent, but the number of vehicle kilometres driven by all these cars went up 25 per cent. Can you imagine another decade of this? Already, in our mainland state capital cities, road congestion is costing us over \$12 billion a year. Air pollution, the downstream effects of motor vehicle emissions, not counting the cost of road crashes, costs \$3.3 billion a year as estimated by the Bureau of Transport and Regional Economics. Sydney is growing.

The federal government's AusLink white paper, released yesterday, is very welcome. It is a good start but it said, 'Urban public transport is a matter for the state and territory governments.' We feel that, as stated in the brochure, there really is a role for Canberra. We have to look at whether we did the right thing with the GST under the new tax system making cars cheaper, diesel cheaper and, in March 2001, petrol cheaper. Not only do we really have to look at infrastructure provision but we also have to ask how we can fund the infrastructure that is needed to make public transport more appealing and how we can make it fit for purpose. You cannot have infrastructure provision without pricing. At the moment, everyone is trying to work out how to provide it but no-one really wants to address how to price it. Everything I have said takes a sharper focus with what has been happening with oil since we made our primary submission. It now looks as though what happened throughout the 1990s—the days of \$12 a barrel—has gone. Indeed, only late last year ABARE along with the International Energy Agency, based in Paris, was saying we would have \$12 a barrel by the end of the decade. Then earlier this year they said, 'Oh, \$15 a barrel.' Yesterday the BBC ran a story and it is on the web. It said, 'You think \$40 a barrel is bad enough? Try \$160 a barrel.'

In summary, we need to look at the road pricing. We have to stop fooling ourselves that cheap oil will last forever and start building transport systems that are less energy intensive—and that includes rail and sea, and walking and cycling. It is not that we as a nation have not addressed these problems before. The ecologically sustainable development working parties in 1992 grappled with them. They said we should make some changes. The Industry Commission, not known for being particularly wet or environmentally friendly, said: 'Look in our study on urban transport conducted in 1994—10 years ago, how time flies. We need a staged approach to road pricing and we need to bring it in now. Ten years later, we need to start.'

There is an omission in the 10-point land transport pricing plan: you will observe that there is no No. 9. The ninth point is, in fact, that we need better data. What is out there at the moment? Who knows what is going on, really. The Productivity Commission, the Australian Logistics Council and other groups have picked up the paucity of data, and there is scope for following the United States lead not only in legislation that says energy efficiency is a goal, putting 20 per cent of federal land transport funds to urban transport, public transport—mass transit, they call it—but also in forming a national bureau of transportation statistics for better data to lift the level of debate. That is the summary. I would be happy to try and answer any questions.

**CHAIR**—Mr Laird, is there anything you would like to add, at this stage?

**Mr Laird**—Not on this issue.

**CHAIR**—Congratulations on your work, too. It is good advice. You talked about the Productivity Commission's role in urban transport. Are you advocating that as a dispassionate examination of the way pricing operates—tax incentives and disincentives? What kind of outcome do you imagine that would produce?

**Dr Laird**—Every time they have an inquiry, you do have to get better data. For example, in the AusLink white paper released yesterday—it is a freight document, basically—we are given tonne kilometres for 1999-2000. Where is last fiscal year's freight task? So inquiries are good for bringing out data. Secondly, in the inquiry into progress in rail reform in 1999, one of the recommendations was an inquiry into road provision, funding and pricing. The government of

the day said, 'No thanks, we'll do other things,' but five years ago it was a good idea. Perhaps it is time to revisit that. Also, the Industry Commission in its 1994 review of urban transport recommended a follow-up inquiry three years later. That was agreed by the government of the day. The incoming government in 1996 had different priorities. An Australian high-powered scientific group looked at air pollution in our major cities. There is also a role for state governments here as well. It is interesting that Dr Tom Parry's report on sustainable transport had a whole chapter on road pricing.

**CHAIR**—It is spotty, in terms of the performance of different state and territory governments. Perth has excited us all—if I could put it that way—about not just the infrastructure investment but using some of the smart transport technology and then meeting the market to say, 'You might not have ever considered mass transit, but here's what you'd do if you had these journeys in mind.' You mentioned some activity in Sydney. Nothing has happened on new rail infrastructure for urban purposes in Melbourne for, what, 10 years, Harry?

**Ms GEORGE**—Not much has happened in New South Wales either.

**CHAIR**—In Queensland, the last great one was the 'Mumbai Express'—as someone characterised it to me—which was getting on the train from the Gold Coast to Brisbane and hanging out the window. What is it about that spottiness of performance? Would you think that before the Commonwealth started putting cash on the table there should be some expectation of states and territories lifting their game as well?

**Dr Laird**—Yes, I think there is a role for state governments to lift their game in infrastructure pricing. They need leadership from the Commonwealth in that regard. It is very variable across Australia. For example, up until 1937 Victoria had carried over a billion passengers on their rail system and they had never lost a person from a train accident. Since 1949 Adelaide has carried up to 10 million people a year and has never lost one from a train accident. In the last 10 years Queensland Rail has not lost one person from a rail accident. Look at New South Wales: two major accidents since December 1999 have claimed no fewer than 14 lives. Just as the safety performance is very variable, so is the operational performance, the innovation and the planning for the future.

**CHAIR**—Why is there that spottiness, in your view?

**Dr Laird**—It is a very good question. I will take on notice, if I may. To give an analogy, for many years both state governments in Victoria and Queensland have been very proactive in encouraging investment in biotechnology in their respective states and in promoting Melbourne and Brisbane respectively as good venues for hosting international conferences. New South Wales has tended to sit back and say, 'Of course you'd want to come here; after all, we're the Olympic city.'

**CHAIR**—So it is about focus, as much as anything?

**Dr Laird**—Yes.

**Mr Watsford**—The preoccupation with the motor car is the major thing.

**Ms GEORGE**—Is part of the problem also the mentality about government surpluses and not running states on deficit budgets or looking at infrastructure as a long-term investment?

**Dr Laird**—Yes, I think so. For too long projects have been deferred. State road authorities around Australia are generally very good—they know what they want to be building in 10 years time, 15 years time and 20 years time. The state rail authorities have been downsized. With the exception of Queensland Rail they have part privatised, corporatised and franchised out everything else. They have not had the same confidence to take the initiative for forward planning. Nor have they had the direction from the state treasuries to go out and do this, except in Queensland.

**CHAIR**—Jennie's point is a good one, though. This hysteria around debt, which was borne out of debt for recurrent expenditure being a silly thing, has flopped over into debt for long-run capital expenditure, which you would have thought, economically speaking—pricing it over its life—makes some sense. There is almost a cash basis to government appropriation these days. Is that part of it?

**Dr Laird**—Yes. The 10-point plan is prefaced with the statement that governments ought to be able to borrow to invest in productive infrastructure with long-term life. That emphasises your point about separating the recurrent expenditure from the investment for the future.

**Mr JENKINS**—Your submission comments on public-private partnerships, which have been used as a way of deflecting that risk. Are there any levels of appropriate public-private partnerships? For instance, to start at a base level, there is a sense of frustration in my local area about the lack of extension of the heavy rail. One of the selling points is that the station would be at a location where, through private investment, a node would develop. So the government's investment would be the rail itself, but that would open up the local area not only by giving access but by encouraging the investment for what would end up being a node. That is at one level, but there must be other levels. You have talked about the whole mish-mash of private involvement in rail public transport, franchised through and everything, but none of that encourages the expansion of the network.

**Mr Watsford**—I think dropping the airport link is a good example of creating nodes, and one would think that Green Square would be an excellent node.

**Ms GEORGE**—But no-one uses the rail.

**Mr Watsford**—No-one uses that rail because they have to pay \$5 or \$6. It is tragic.

**CHAIR**—It looks like a movie set—no-one else is there.

**Mr McARTHUR**—What would you do with that train? You are train experts. Why did it go wrong?

**Mr Watsford**—I suspect there is a feeling amongst Sydney commuters that paying the additional \$6 to get off at the station is just too much and uneconomic. Sydney has traditionally had low fares, and people like to see them kept low. I think the fares are totally unrealistic—they should be higher. In fact, when you go to other cities, the fare structures are much more

equitable. But Sydney people, for some reason or other, must have cheap fares, they must have a seat, and various other requirements, that mean that a lot of money must be invested and the returns are not there. I think Mascot and Green Square are two areas that could develop, and probably will develop in due course.

**Mr JENKINS**—Green Square has the advantage that, if there is going to be that urban renewal of the scale that is going to go on around it, the rail station is an important piece of infrastructure to go in early.

**Mr Watsford**—It certainly is.

**Mr JENKINS**—I understand the point you are making, that at this point in the cycle nobody is using it, but in terms of potential it is going to be there. But there is a sense of frustration on the outer urban fringes of cities like Melbourne where there is nothing before the development.

**CHAIR**—There is an argument that you guys luxuriate in options. It was put to us by the city of Port Philip that if only they could have a kilometre and a half of tram linking two tram lines, they could bus it, train it, ride it, walk it or tram it. In Harry's area, in the area I represent, in Stewart's area and, I imagine, in Jennie's area as well, that is a luxurious range of transport possibilities that are available in those inner and middle suburbs to some extent that is denied almost completely to other areas. How do you tackle that transport advantage versus transport disadvantage where there is substantial investment in some parts, service availability, and two bits of stuff—all in other parts? How do we tackle that?

**Dr Laird**—I think we have to look at infrastructure infilling, as it were. For example, Castle Hill in Sydney has grown extensively in the last decade or two.

**CHAIR**—Where is that?

**Mr Watsford**—North-west.

**Dr Laird**—There is supposed to be a line from Epping to Castle Hill. It was stated in the state government's action for transport 2010 statement, and there is no way it can be built by 2010. Yet the people have gone out there but the rail has not opened. It is going to require more investment. To answer Mr Jenkins's question on PPPs, our main submission says 'proceed with caution'. The airport line is one that would make you weep. If you could get hold of it, lower the fares for a little while to get people used to the idea of trying it, and put on dedicated, single-deck, luggage-friendly trains—

**CHAIR**—Do they have the double-stackers going on that?

**Dr Laird**—Yes.

**Mr Watsford**—And just the ordinary suburban trains.

**Dr Laird**—To come off a flight from overseas, say, and get off—

**CHAIR**—Lug your bag upstairs. That would be a great experience.

**Mr Watsford**—Most flights arrive first thing in the morning and of course the peak hour trains are coming through, so you cannot get your bag on the train.

**Dr Laird**—It is under the dead hand of receivers and managers at the moment. If you look at the Alice Springs-Darwin railway as a PPP, with enough government funding from three governments to get it up—

**Mr McARTHUR**—We are just waiting for the outcome of that, though. We are seeing how that will go.

**Dr Laird**—The private sector underwrote some of the risk and government had to pick up some of the risk. It is very early days but the tonnages are above projections.

**Ms GEORGE**—You talk about tilt trains. I think part of the problem in changing people's attitude is that they have daily experience with public transport that is pretty horrendous. Why are they going to sit for an hour and a half on an unreliable service? They may have to get a bus now when the train is going to not go down to Bomaderry. Everything that happens in their daily reality turns them off and they see the car as a much more expedient and reliable means of transportation. What is the solution? If it gets worse and further rail services are cut, which is going to happen in a number of the areas on the outer fringe of Sydney, then in terms of the long-term public future for public rail I think it is kind of self-defeating. You say that the tilt trains work pretty well in Queensland between Rockhampton and Brisbane. Is that something that offers a viable alternative?

**Mr Watsford**—I think you have to divide up the various uses. There is rapid transit into the central business district and there is the urban passenger, which is the Sydney, Melbourne and Brisbane suburban system essentially. Then there are the long-distance country passenger services. The tilt trains are specifically designed for long-distance country lines with good high-speed tracks. It is no good putting a tilt train on the existing tracks because you cannot get the train to go fast enough because there are too many curves. If you have a nice straight freight train line we could run some extremely good speed tilt trains on it, and that is the Queensland experience. Where they have straightened the track the train gets up to 160 kilometres. Where it has to go around the curves it goes back down to 60 kilometres. It is crazy. That is long-distance country.

In the city areas you really have to look at the specific reasons why a train service in particular is really good to feed the central business district. One is that people cannot park when they get into town. Two is that it is a frequent service so it does not really matter when they want to come home. Going in is one thing but coming home is another. You want to be able to walk down to the station and get on the train within, say, 10 minutes. The odd train that wanders in from the outer suburbs on an hourly or two-hourly service, people do not want to use that. If they have just missed it they have got to wait an hour, so what do they do?

**Ms GEORGE**—I guess I am talking specifically about Wollongong, which is 100-old kilometres from the heart of Sydney. The current line cannot be upgraded. They have looked at boring tunnels through—

**Mr Watsford**—That is horrendously difficult.

**Ms GEORGE**—That is not going to happen. If you leave the service the way it is or keep cutting it back, fewer and fewer people are going to take the train as an option. So what is the solution if we are talking about sustainable cities in the next decade or two? What should this committee be recommending when we have got about 18,000 people that come out of Wollongong and the surrounding suburbs every day to work in Sydney and they go through this nightmare in the morning and in the afternoon?

**Mr Watsford**—Again it is the node thing that Mr Jenkins mentioned, that you need a node such as a main centre, for example Wollongong. If people are going to commute to Sydney to work, some form of decent transport is essential. Maybe the tunnels will have to be bored down through the escarpment down to Wollongong to overcome that wretched train line down there, which is actually slipping into the sea. Something has to be done in that regard, but it will not be cheap. Likewise to the north going to Gosford the line is horrendous as it winds down to the Hawkesbury River. That needs a high-speed train to make it easier for long-distance commuter trains to travel at reasonable speed and be a lot more reliable. The reason there is so much traffic on the F3 in the morning from up north is that it takes a long time—

**Ms GEORGE**—It is the same where we are. If you go a bit further south down to Nowra, if they cut the rail services—which they are talking about doing—that only leaves the Princes Highway.

**Mr Watsford**—But do many people commute from south of Kiama to Sydney?

**Ms GEORGE**—Probably as far as Kiama.

**Mr Watsford**—They would probably like to come to Hurstville or suburbs south of Sydney, so that is an advantage.

**Ms GEORGE**—Where you have a community that is reliant on a highway that is not dual carriageway for most of the way and a rail system that is being cut, what are the options for those centres? That is where the population growth is going to be, isn't it?

**Dr Laird**—The way Sydney's greater metropolitan region has gone south of Kiama and up the Hunter and down the Southern Tablelands is basically predicated on cheap oil and low fares. The low fares have gone hand in hand with severely compromised urban rail infrastructure. I think we are going to have to go through a few years where it will be a bit tough. Another aspect is very real to many people: if you get on a train, are you safe? It is a safe way to travel from the point of view of—

**CHAIR**—Accident.

**Dr Laird**—accidents, but are you going to meet some not very nice people who might—

**CHAIR**—Borrow your wallet.

**Mr McARTHUR**—Can I add to the discussion by saying how delighted I am to see Dr Laird. He is a foremost railway enthusiast in Australia, and when his son has attended as many hearings as he has he will get a gold medallion as well. I ask the two of you, quite seriously: you raised

the issue of urban transit rail systems not going well, particularly in Sydney. Obviously after the AusLink statement yesterday we have had a bit of progress in the freight area. Could you just give us a general philosophical statement on why the London underground system and the New South Wales rail system are struggling. Is it because of the low-fare mentality or is it because motor cars have overtaken them? This committee has really been trying to encourage public transport, and we are having some difficulty in producing some rationale. Sydney seems to be an interesting example.

**Mr Watsford**—On the London system, you have to talk of the London underground and the London suburban system and the intercity.

**Mr McARTHUR**—No, talk about the London underground.

**Mr Watsford**—We do not have a transit system here in Sydney and there is not one in Melbourne either. If we had one it would go out, say, 10 kilometres to Strathfield or up to Chatswood. In fact, Ron Christie has put up a big plan for rapid transit railways—single-deck, high-speed, high-acceleration trains to service an inner city area. Our current suburban trains are really suburban trains that go through the city and have a rapid transit requirement for two or three stations whilst they go through the city and then they are back as suburban trains again. The railways were set up and electrified in the twenties and thirties—

**Mr McARTHUR**—What is your solution?

**Mr Watsford**—to get the people from the outer suburbs to the central business district. One of the issues at the moment is that we are developing business districts outside the CBD. The train is not designed to get from north to west. The train is designed to go into the city. In the morning I travel from north to west by road because it is simpler.

**Mr McARTHUR**—What are you suggesting, if you want people to be on the trains? You two guys are the experts. Can you comment on how you get them back onto the trains?

**CHAIR**—How do you get bums on seats on trains?

**Mr Watsford**—You have to have major centres where people cannot park their motor cars. Then you can feed a train in there and get the people to work and get them home at a high-frequency status.

**Mr McARTHUR**—Your suggestion is cost them out of business in the CBD because of car parking, so they are forced to go on the train, and put the train price up a bit and you can reinvest the capital. Is that what you are saying?

**Mr Watsford**—That is one of the issues.

**Mr McARTHUR**—What do you say, Dr Laird? What is your view?

**Dr Laird**—As the Industry Commission said 10 years ago, you need a staged approach, you need better service levels for public transport to attract people to it. Sometimes that can be assisted by competition.



**Mr McARTHUR**—You have just given us evidence that the thing is going the other way in New South Wales. You are saying there are more deaths and the system is breaking down.

**Dr Laird**—As I said, we are going through a tough patch at the moment. But I think, ultimately, there are inherent advantages. One fully laden train uses 20 per cent of the energy that a person uses sitting in an average sized family car. It is so much safer; it is so much more energy efficient.

**Mr McARTHUR**—We know all the advantages, but how are you going to get the people of Sydney to go on your train?

**Mr Watsford**—Pricing—petrol pricing is one issue.

**Dr Laird**—You cannot do it without pricing. We just cannot, unless we want to—

**Mr McARTHUR**—Yes, but the price is down.

**Dr Laird**—We argue in our submission that it is unrealistically low at the moment. For a real instrument of budget destruction, take a New South Wales seniors card. It is the best deal in the universe, but how long can we continue, particularly with the baby boomers coming on, to allow people to have 400 or 500 kilometres a day of train travel—

**Mr McARTHUR**—Are you saying to the committee that we really have to change the whole philosophy of how we run the New South Wales rail system?

**Dr Laird**—I think that all over Australia we have to look at the pricing of roads and rail, put more of a polluter-pays principle into the system and start internalising the current external costs, of which there are many, in all modes of transport. It is not going to be easy, but as we quoted in the submission from the Secretary of the Treasury, Dr Ken Henry—

**Mr McARTHUR**—The final question is: what will happen if you do not win the argument of getting people on the train?

**Dr Laird**—Then when crunch time comes it is going to be harder.

**CHAIR**—Martin, do your mates ride the train?

**Mr Laird**—No.

**CHAIR**—Why is that? Is it because it is not going where they want to go, or are they a bit spooked about what is going to happen when they are on it?

**Mr Laird**—I have one friend who does ride the train. He lives a bit up the coast. He uses it and enjoys it, but I would not use the trains. I try and avoid them. Currently, there is a lot of graffiti around North Wollongong station.

**CHAIR**—So it just feels unsafe and stuff?

**Mr Laird**—I have a fear of crime. I only ride it if I am with my family, a good friend or something.

**CHAIR**—So you might go on it if you are travelling in a group?

**Mr Laird**—Yes.

**CHAIR**—But on your own you would not?

**Mr Laird**—No, but some of my friends travel to Sydney on it.

**CHAIR**—What would need to be done to the train service to make you feel inclined to use it rather than to buy a Commodore when you hit 18, hit the road and hoon down?

**Mr Laird**—When I hit 18, in three years time, I am probably not going to get a car. I am exposed to violence and crashes on TV, and insurance is also very expensive.

**CHAIR**—So the cost to have one is—

**Mr Laird**—Yes, so I will probably have to use the train. I just wish trains in New South Wales were more like those in Queensland.

**CHAIR**—In terms of their quality and the whole experience, where you can put your bike on a train and not have people look at you like you have the Ebola virus or something?

**Mr Laird**—Yes.

**CHAIR**—Thank you for your presence and contribution today, gentlemen.

**Dr Laird**—Thank you very much for the opportunity to meet with the committee.

[4.23 p.m.]

**GERSBACH, Mr Wayne, Executive Director, Planning and Environment, Housing Industry Association**

**CHAIR**—Welcome. Although the committee does not require you to give evidence under oath, I advise you that these hearings are formal proceedings of the parliament and consequently they warrant the same respect as the proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a very serious matter and may be regarded as a contempt of parliament. On that cheery note, would you like to make a brief statement or some introductory remarks.

**Mr Gersbach**—I presume that you have received the submission that we put in last year. We certainly welcome the opportunity to address you formally today. I will take you through the submission to refresh your memories on it et cetera. It is not necessarily comprehensive, but it covers a fair amount of ground, as these matters do. I take you to the second paragraph of page 2 of the covering letter. I think it is a key thing, because we picked up in the terms of reference for the committee that there seemed to be a concern with sprawling cities, and certainly the position was seemingly obvious to us that there was a negative impact associated with city growth, so we tried to put that into context. The very first way of doing that was to point out that our cities are growing, and we take the view that that growth is, to a very large degree, inevitable as they become globally competitive. They are places of employment, places of cultural development, places of entertainment and, essentially, places where people want to be.

The third paragraph again points out that an appropriate policy response to this would be that we should not ignore it; we should go with it and learn to manage that growth more appropriately and more sustainably. This does not mean that cities should be allowed to grow ad infinitum, forever and ever, but it does mean that the planning profession's role is to look at how, from a metropolitan point of view, city growth is managed, infrastructure is provided and, particularly importantly—at least to the HIA, in light of our recent work done for the Productivity Commission in relation to first home ownership—developed and financed so that home ownership and the things that people enjoy about a city remain affordable.

We then point out—a couple of things I have not brought as attachments today I am sure were included in the original submission—our GreenSmart strategy, which is a proactive initiative on behalf of HIA to encourage builders and developers to take on environmental initiatives and, indeed, to market their wares accordingly; and our planning reform doctrine known as *Better living environments*; and our GreenSmart consumer magazine, copies of which I have brought along today.

I think we also attached initially our Productivity Commission submission, which points up some of the drivers of increased cost. It is probably appropriate to go to page 5 of that submission, at the bottom of which we quote some recent work done for the Western Australian Planning Commission by SGS Economics and Planning. A couple of steps there we thought were very relevant to the consideration of the committee; it is a bit of a pro forma for how to consider and manage growth in a sustainable way. First of all, it points out that there must be

recognition that a proportion of a city's growth will be accommodated in new release areas. It tends to be about 25 per cent of most cities these days. In Sydney a 70-30 policy applies. That is not to say that there is not a higher demand than the 30 per cent that is allowed in the case of Sydney, but certainly planning policy says that 30 per cent of the growth shall come from that area alone. So, in recognition of that, we say it has to be locked in and to think that it is going to go away would be foolish.

Infrastructure cost savings can be achieved by lifting net residential densities in fringe locations to 15 dwellings per hectare. That is being achieved in Sydney currently—not necessarily in the most sustainable of ways, but new subdivisions these days are getting a lot better at knowing how to develop at that level of density. Significant savings can be made by managing or sequencing the release of new urban land; in other words, it has to be put together in sufficient mass to allow services to be provided *et cetera*, rather than *ad hoc*, which has often been the case over the last 10 years—particularly in this city. Savings might be available by accommodating households in established areas; much depends on the capacity of infrastructure. We hear a lot about spare infrastructure capacity, but we see very little of the measure of spare infrastructure capacity. It is rather ironic that it is one of the reasons why we are encouraged to grow our cities in a more compact form, but it is certainly the No. 1 issue that—

**CHAIR**—It is not reflected in the price.

**Mr Gersbach**—Certainly the No. 1 issue that residents of those areas raise in objecting to a more compact city form is the lack of space: on the trains, for parking, for shopping and for public open space *et cetera*. So essentially there are two different stories coming out about spare infrastructure capacity.

A large proportion of the savings suggested can arise from the extension or augmentation of physical infrastructure where this infrastructure is provided on a user-pays basis, which is increasingly so in most capital cities in most states. There is little policy reason to be concerned with where development occurs—that is, if the pricing is right, people should be allowed to do it. Certainly the price factor was one of the early reasons why state governments looked towards a more compact city form; these days user-pays systems put that in a different light.

The pre-emptive or precautionary curtailment of outward growth is not the best way to manage the issue of hard infrastructure costs, housing choice and affordability. We have certainly seen in this city that constrained land supply has led to a significant increase in land prices over the last 15 years—to the degree that land prices now probably account for about 67 per cent of the cost of producing a landed house on the city's fringe—and the average price of a land and house package in Sydney is around \$520,000. So we do not necessarily want other cities to go down that same track—certainly not without knowing the implications of these sorts of things.

The second point is about defining sustainability for implementation. It talks about a clear definition from an operational point of view, a legislative point of view. Just today I have been penning a HIA board report looking at where sustainability is up to in various state government regulations, legislation and initiatives *et cetera*. It is really—if I can use the term—a dog's breakfast: they are all over the place and at different levels.

We have a sustainable housing code which was initiated from the good work done by Brisbane City Council, which set the pace in Queensland. In Sydney, BASIX will apply as of 1 July, which has lifted the bar quite substantially for new dwelling construction and it will be expanded to apply to high-rise construction. Up until then, we have a myriad of local government policies dictating the level of sustainability to be achieved in development and in greenfield subdivision form. In Victoria, Fivestar is about to be introduced; the government has initiated some work which has looked at the role of planning regulation versus building regulation and plumbing regulation to achieve sustainability. Western Australia has just announced a sustainability strategy and over 300 recommendations have become the responsibility of the various state agencies and departments to introduce. South Australia has a sustainable development bill in progress at the moment.

So there is a whole range of different issues, but not necessarily a lot coming from the Commonwealth government in terms of leadership on this matter. Certainly, coalescing a lot of those particular initiatives in a meaningful and less complex way would be of great benefit to the industry—particularly given the often contradictory roles of building regulation and planning regulation; they are seen as really being at loggerheads in getting through and across sustainability and making it easier to implement.

**CHAIR**—What are we going to do with planners?

**Mr Gersbach**—I am a planner, so I do not know that—

**CHAIR**—That question is provocative, because Dianne is next.

**Mr Gersbach**—She is sitting behind me. I am also a member of the Planning Institute of Australia.

**CHAIR**—She is holding scores up every time you make a statement!

**Mr Gersbach**—It is a real issue, though, in that planning seems to have a desire to drive best practice. Certainly the view that the industry feels quite keenly about is that building regulation should be there to eliminate worst practice.

**CHAIR**—But planners are supposed to plan.

**Mr Gersbach**—Yes, they are.

**CHAIR**—Certainly, in my experience, it has been more a reactionary development with quasi judicial approvals, tick the box, ‘Yeah, go ahead and do what you want.’ Sustainability of our cities conjures up thoughts of more proactive, finding-a-pathway and forward-looking strategies, yet we keep hearing from just about everybody who talks to us that there is no metaview coming through to help the bits of good stuff that are going on come together to make some net improvement.

**Mr Gersbach**—I thoroughly agree with those views. Unfortunately, for quite some time, planners have seen the development application process, indeed the development consent—about which they write and impose conditions on developers and builders—as a panacea for

urban ills: 'We can fix it by way of the DA process.' That is not necessarily so. They would be far better, I think, focusing their attention on setting the right policy framework for these things to happen in partnership with industry and in partnership with the real tools of government, which are about providing the infrastructure which is necessary to encourage sustainable city growth.

We would certainly encourage planners to have a metropolitan or regional view of the world. We would prefer to see the BCA as a tool for sustainable construction practice really being drummed up. There is a clear line of distinction there, but unfortunately planners tend to take a fairly direct route to achieving some of the aims that their community or they themselves have dreamt up. It is a bit of a problem.

**CHAIR**—Your industry brothers were making a presentation to us in Canberra and—I cannot speak for the others—I was singularly underwhelmed by their contribution about regulatory flaws as distinct from the BCA being used to bring about change. They were arguing: 'When the market asks for it, we shall deliver; our tradespeople are not technically competent to venture away from tried and true building practice that has been around for 30 years.' There was just a litany of reasons why nothing would happen with that—'But, of course, we are happy to play our part.' That was a bit disappointing. I thought there was more scope for you guys to be the leaders of change and innovation rather than the resisters of it.

**Mr Gersbach**—Indeed. Our industry is traditionally conservative by nature. Many people do not necessarily see too much further than what is happening next month or where their books are for the current week or whatever. But certainly as an industry association we have been pushing environmental awareness, sustainability awareness and an ability of the industry to work with governments in partnership. I think GreenSmart is a classic example of that.

In WA we have a great relationship with the state government. Landcorp, one of their urban development agencies, is one of the major leaders of the GreenSmart cause over there, working in partnership with our builders and our developers. In Queensland the Environment Protection Authority use GreenSmart almost as their sole vehicle for getting messages out to the building industry. They have been sponsoring a heap of events for the last three years and will do so for the next three years. In New South Wales we have two GreenSmart projects about to be launched. We will have a project commissioned by Stocklands. That will come on line at the end of July and that will comprise about 20 dwellings, which will be fully BASIX compliant, plus some.

We are out there demonstrating that these things can be incorporated in the way that homes are put together. That is not necessarily saying that we do not have problems with regulation and the way regulation is introduced. But we wish to be seen as an industry which is a bit more go forward and can incorporate some of these ideas in the way that it does business. Increasingly, we find that our members are the ones that are out there striking deals with the government in the first place. They are actually leading the charge behind the scenes, because they see marketability in the product that they deliver and the way that it is delivered.

**CHAIR**—The architects say that if only they got more than six per cent of the market that would bring about change. The planners are saying, 'If only people listened to us, rather than

just treating us as an obstacle to be overcome, that would fix it.' Everybody seems enthusiastic about making a contribution, but we cannot quite get the rubber to hit the road.

**Mr Gersbach**—We would subscribe to the theory that regulation really needs to set the standards. I would use the term 'eliminate worst practice' but when you are talking about sustainability measures that has a negative connotation. It really should be about setting the acceptable community standards for that type of construction. Once they are set in regulation, then the industry can really go hammer and tongs in competing with each other to do better than that. But there needs to be a fairly widespread acknowledgment about what those community standards should be for new urban development.

As I said, some of our leading members, our leading GreenSmart partners, are striking up deals with Sydney Water as we speak about the degree of water reduction that can be incorporated into new house designs and new estate designs. Those same agreements have been undertaken on a much broader basis in other states. Industry are keen to sign up to those sorts of commitments. They need it. It almost underlines the way that business is done these days. You need to justify your outcomes when you tender for land, you need to justify your outcomes when you are going through the master plan and the subdivision process, and you need to deliver those outcomes when you go to the land development and housing construction stages. So it is pretty much locked in. Industry are definitely up there competing with each other to raise the bar, where there is a market return for it. That does not mean that they want the regulation bar to follow the lead that they are taking. They would be happy for the regulation to remain at not a low level but a consistent level.

**CHAIR**—What about market literacy? You see McMansions crawling all over the hills of Western Sydney and other parts of the country. There does not seem to have been anywhere in the contractual discussion a conversation about operating costs or prospects.

**Mr Gersbach**—I think perhaps that is a result of some of the regulations and some of the initiatives that have applied in New South Wales. All of the new homes built today, the McMansions—and it is typically in New South Wales that that term is applied—have been built in accordance with a SEDA, a state government, policy for 3.5 energy rating. So the homes are 3.5 rated.

**CHAIR**—So they are modest by design.

**Mr Gersbach**—Are they like a resort? Yes, they are. But they still meet the guideline that was set. What has not evolved is the desire to do better than what the regulation requires. But the Sydney market is a very tough market. As I said before, land costs are at about 67 per cent of total house and land package costs. It really has become a market which presents new housing in the form of best value for money. You get a lot more bang for your housing buck than you do for your land buck, so there is a tendency for the market to say, 'If I can get big—if I can get that extra room—I'll take it, thank you very much,' because it represents good value to them.

Changing that market is about land release strategies, the way that cities are growing, having development fronts more than just north-west and south-west and having a very small amount of land which is released under those programs on a yearly basis. We will struggle to reach 4,000 lots in Sydney this year, compared to about 20,000 that were released in Melbourne last year.

That is a very tight market. It is a simple case of too much money chasing too few goods. There is not enough land out there to satisfy the industry's demand. If that were evened up, I think you would find that people would be looking at the type of house that they put on the project and perhaps would be more able to incorporate sustainability measures et cetera.

**CHAIR**—It strikes me as odd, though, given that balance between the cost of the land and the improvement. We have had contradictory evidence about whether a more sustainable house is more expensive or less expensive. We have had all of those points of view put to us. Even if we accept that it is modestly more expensive for the housing component, as a proportion of the overall house and land package they are not large sums of money. Yet the savings and the capacity to service the mortgage in the longer term—

**Mr Gersbach**—Unfortunately, when you are talking in terms of 10-year paybacks, it is a bit of a turn-off with the consumer. Probably a more appropriate way to address it would be via house size so that if you actually save in the extra 15 square metres of rumpus room or 20 square metres of house size, you can incorporate these provisions from the word go. Part of the additional cost also comes in the manner in which regulation has been introduced. When it is a layer of legislation on top of other legislation, it tends to be an afterthought. You could comply with BASIX in New South Wales, which will kick in as of 1 July, but to do so you will need to incorporate a water tank which is plumbed.

**CHAIR**—It is a bolt-on thing?

**Mr Gersbach**—It is an add-on thing. The house is already there. The project home builders already have the house, so they have not thought about how they are going to incorporate this. That is part of the difficulty. The BASIX tool kit, if you like, was only made available as of May but the legislation kicks in in July. Between May and July is not enough time to redesign how you are going to build a house. It will be, initially, certainly an additional cost and a fairly significant additional cost. It will amount to \$15,000 to \$20,000, which is a big bite, and it is not the discussion that the New South Wales government is having with the public at the moment. Stay tuned for 2 July when it gets out.

There are other ways of introducing that. We have suggested to the government that they defer the commencement of that type of legislation to allow the industry, the manufacturers and the suppliers to gear up for it in terms of how they market the equipment, the tools and the products that they presently sell as well as develop new product which best allows for the most cost-effective way of achieving those sustainability gains. You need to work in partnership with industry to bring about that sort of result.

**Mr JENKINS**—Chair, I thank you for asking most of the questions that I would have wanted to ask, but I have found one that you did not ask.

**Ms GEORGE**—You raised the code, did you?

**Mr JENKINS**—We have had a bit of a discussion about the code. A couple of months back, when we had an interesting morning in Canberra with a couple of organisations, the Australian Building Codes Board indicated that they had not embraced sustainability as part of the BCA.



You have made comments that I think go down a slightly different track about what is required. Do you see it as something that really needs to happen down the track?

**Mr Gersbach**—I see it as something that probably really needed to happen 10 years ago. Part of the danger with our argument which supports the BCA in a sense as a model regulation is that the ABCB has really been unable to answer that call because of its structure. However, we are not suggesting that you throw the baby out with the bathwater. We think that the BCA is a very good model. We think that it has tremendous capacity to take on a greater design role and a greater role in regulating the way that buildings are constructed from a sustainable point of view, but we see that the ABCB itself has to be significantly restructured to deliver on that outcome. That has been part of our recent submission to the Productivity Commission. It is not as if we want to abandon ship; it is just that we need to strengthen the leadership of the ship so that it has got the right tools.

That is why state governments go down the planning route when it comes to introducing sustainability into planning legislation—DCPs, LEPs et cetera. They do not want to wait for the ABCB to get its head around how to do it. Rather than even go down the track of having a state variation, which is allowable under the BCA structure, they will still go down planning legislation. You could not do BASIX in New South Wales within the time frame that has been allowed, if you went the ABCB route. You would probably be 18 months out.

In New South Wales targets were announced last October and legislation was first made public on 1 May and will apply as at 1 July. That would be absolutely unheard of in a BCA regulatory regime, which is one of the reasons that they do not go there. It is a hell of a lot quicker. But, with the structure of national uniformity and national harmony in the way these things are done, there is no reason why building practice in WA should differ from that in New South Wales, from a sustainability point of view. There might be other reasons—the soil you build on and the community expectations on the nature of the fabric—but, from the point of view of a sustainable outcome, there should be absolutely no reason why they differ.

**Mr JENKINS**—An industry body put it to us that one of the reasons that they were involved in progress was that there is inconsistency across jurisdictions. I think their primary example was across local government jurisdictions in this state, which, as a Victorian, that was something I had to get my head around. But is that really the case? They gave as an example that where a road is the boundary between two municipalities, what is going on on either side might dictate where their members might go.

**Mr Gersbach**—That is absolutely the case in this state. New South Wales is regarded as a basket case in terms of planning legislation and how it is applied. It is significantly diabolical. It is very difficult. One of the major things about which our members continually come back to me as their representative is the inconsistency applied by councils. For those that have a broader perspective and a broader operational basis, that is across state boundaries as well. That is certainly the work that has been taken up by the Development Assessment Forum, which is trying to harmonise an approach to the assessment of development projects. It is increasingly being heard by state government, even in New South Wales where, for instance, the basic solution would be to apply the sustainability criteria across councils so that, by the stroke of a pen, they rule out the right of councils to have some say in energy and water reductions et cetera.

A great example is that we recently did a survey of Western Sydney councils, trying to put forward the idea of common housing settings, similar to the R codes in WA and Victoria. We looked at a number of standards for solar access, building height, floor space ratio, setbacks, cut and fill, driveway gradients and principal private open space, and they all differ. The remarkable thing is that, at the end of the day, the product on the ground, across all these councils, is very similar. It still looks like a new house built by Clarendon in Fairfield or Baulkham Hills. It is just that they have gone through a totally different process to put the project on the ground, at great cost to the client and the industry, for no real apparent reason. That inconsistency really has reached the stage where it needs to be clawed back quite substantially.

**Mr JENKINS**—Is this an issue about which, at the federal level, we should encourage some discussion at COAG and, to borrow something that the chair has been promoting, akin to the competition commission and competition policy, in saying that there should be a sustainability policy and that there would be benchmarks that states and territories would have to achieve or there would be a penalty?

**Mr Gersbach**—Certainly. Whether it should be tied to a sustainability charter is, from our point of view, debatable. We certainly do not want to make it any more difficult for things to happen. One of the primary reasons—and no doubt your previous speakers have raised it—is the lack of investment in the hard infrastructure that is required to make a city work. You cannot pretend that the fringe is not part of the city. The people within the fringe commute to these areas on a daily basis to work, so the city benefits from its growth because it has residents that it can draw upon to satisfy its employment needs et cetera. That lack of infrastructure is absolutely critical at the moment. Increasingly we are finding that sustainability as a goal is becoming an excuse to do nothing. So we would not want to see a sustainability charter put in place, only to find that you cannot really have your infrastructure shared or doubled because it does not match up. What we are saying is that the infrastructure needs to be locked in to make everything else sustainable and feed off it.

**CHAIR**—The thinking was more that, if you want access to further resources to supplement that, there would be some expectation that you would at least be doing certain things to prove your bona fides before you asked for the cash.

**Mr Gersbach**—Indeed. If you are going to put up for money, you have to show some deliverables on the ground. If they can be linked to the sustainable management of the city's growth then that will be good news, as opposed to, as I say, the fairly loud and clear message from the state government point of view in recent times: 'If it ain't sustainable, you can't have it. We can't afford it anyway, so even if you want it you're going to have to pay for it.'

In Sydney we have an absolutely chronic situation where just last year the state government announced a \$15,000 per lot tax for transport. That was to pay for an interchange and some other services in south-western and north-west Sydney. The idea of buying a lot of land and a house and paying for the infrastructure is just foreign in other states. Other state governments do not make a decision, to a large degree, to subsidise the provision of that infrastructure up-front to make the development more sustainable. It is a question of balance as to what is a cost to state government, what we should all pay as a whole community and what the landowner should pay for the right to live somewhere. We tend to think that in New South Wales the balance has tipped too far one way.

**CHAIR**—We have seen examples of excellent practice. In fairness, they are spotted around the country, but they are a delight to behold.

**Ms GEORGE**—They come in at quite a high price!

**CHAIR**—They are fabulously expensive, which is what I was alluding to. So there is clearly scope to do some of these things. What interests me, though, is the question of scale. Spotty four-lot subdivisions on a hectare—or six or seven lots, depending on what plot ratio you are looking for—do not offer a lot of scope to do anything more than build the same old mouse trap. They may say, ‘We’ll use recycled wood rather than virgin timber,’ and that is okay. But larger scale projects allow for a more serious look at infrastructure provision, a better level of design and urban amenity and, more particularly, to deal with your earlier question, development that is not just sprawling dormitory areas. It is a chance to facilitate a more rounded community experience. Is there a role for governments to help or to support the coming together of landholders? They might say: ‘You want to do your own thing. We’re going to give you 600 square metres. Take it or leave it.’ You pay your levies and do all that stuff and it is fine. But, if you could aggregate your holdings with a whole bunch of other people and get to a level where you could design in some of these attributes, you might get a better outcome.

**Mr Gersbach**—I think there is a great role there, whether it is in land banking by state government agencies or indeed in the approach that the New South Wales government will take in Bringelly with these areas which have been identified but not yet incorporated as part of the metropolitan development program. They will do the master planning. It will be part of the rezoning process so that these design solutions are obvious and they will actually lock out individual landowners until such time as they form partnerships with each other. In other words, the state government is not becoming the land banking authority and getting in there and buying the lots in advance, but it is actually legislating that these developers cannot do it alone. They have to do it sufficiently en masse in conjunction with their partners; otherwise, they do not go.

The loud and clear message to the market gardeners is that we cannot sit and wait for 15 years for the price to quadruple each year. We actually have to go now or not go at all. The pressure would come from within, if you like, because the guys would be saying, ‘I’m ready to go now and you’re holding out.’ We think that there might be some substantial gains there. Certainly the WA model is probably one to look at. They reserve land for future urban use, so there is a fair bit of preplanning done by the state government.

**CHAIR**—It almost needs an honest broker. We talked about Green Square urban renewal. Arguably there is nothing to stop that happening using mainstream—

**Mr Gersbach**—And Landcom play that role in New South Wales.

**CHAIR**—Yes, someone needed to come in so that people did not feel like someone was taking them for a ride. I just wonder whether, in the institutional structures, that capacity to bulk up the holdings to get better outcomes is something that—

**Mr Gersbach**—I think I would like to look at the mechanism. I think the principle is fine. Often the case with planning legislation is that it starts off with terrific intent but ends up as a burden on the system because you have not really thought through the consequences of how it

will work, so it is very difficult to anticipate exactly what will happen. There have been discussions about taxes and value-capture and betterment tax and how to tie them in to a master plan process and that sort of thing, but it would take some pretty good minds sitting around a table to do that rather than just an idea or an expression or response from me, because I might not get it right. I think the theory is right but it needs some working through about how to do that, whether it be by a land agency such as Landcom or something else. They do terrific work on that basis in Sydney, but it is a very long and painful process for them to undertake. Most other private developers would not go there.

**CHAIR**—We saw Delfin and a few others who managed to do it quite successfully.

**Mr Gersbach**—Exactly.

**CHAIR**—But they had Lend Lease cash backing it up. The holding costs are huge.

**Mr Gersbach**—I think it also has to do with the way in which land is rezoned in the first place. I tend to think that the domain of the urban planner in previous years was that they had a fairly rigorous assessment of urban capability before land was rezoned. These days the trap that New South Wales has fallen into is that the rezoning is made and then the individual assessments by what used to be the Department of Land and Water Conservation, the National Parks and Wildlife Service—all of these agencies which have particular points of view and interests—all then play a part in how it comes up. I think you need to go back to the drawing board and establish what your urban capability is up front and where your guidelines are—for instance, in terms of the Cumberland Plain bushland that can be preserved and how it is to be linked—so that it is known, and then land can be amassed in such a way that the densities can be achieved and the sustainability can be incorporated into provision of infrastructure such as railway networks, bus stops and the like. But to do it on a market garden by market garden basis is really just asking for trouble. There are plenty examples of that out there.

**CHAIR**—Your submission highlights that the non-residential building sector has been doing a bit of a better job on energy efficiency and greenhouse and the like, and you caution against the residential sector being seen as a soft touch and a bit of a fit-up job. Why is that experienced? Is it because commercial tenants look at the total cost of their occupation of buildings, or is just that the metrics are in place for commercial buildings and are not there for residential buildings? What is driving that? If housing should not be considered an easy target, and it is dragging the chain now by your own analysis, what does the catch-up footy game plan look like?

**Mr Gersbach**—Energy regulation has been a difficult road for the industry in that there are myriad regulations that apply. There are probably a couple of opportunities there, but obviously consistent regulation helps. We need to look at the existing stock of housing, and that is not necessarily covered or coming within the domain of the planning regulatory system. We need to have better coordination between what the BCA does and what planning and regulation does.

I am just referring to my own notes at what we said about the concentration on building fabric—if you look at where the drivers of high costs in the residential market are, you can see that they come from refrigeration and major appliances, yet they have really been dragging the chain a bit. The houses are getting bigger and there is more space for these appliances to occupy. So it is interesting when you look at some of the drivers as opposed to space cooling and space

heating, which together add up to only about 13 per cent of the total use. A lot of it is focused on how we build homes and how we operate homes and where we place the windows and how we insulate them et cetera, but the real consumers of energy are in the standby electricity we use when we turn our telly on and off or the kids flick channels and that sort of thing. All the other gizmos are now following that market trend—for instance, just about every project house comes with a theatre room—where the use of those sorts of appliances is encouraged because the market wants it. They are very attractive to the market, but we need to take a broader view of where the energy is being consumed and how you can achieve savings in that respect.

**Ms GEORGE**—Is this conversation going on with some of the big project developers like Jennings and Clarendon?

**Mr Gersbach**—By all means. We were just looking today. We have trained over 1,200 GreenSmart professionals nationwide. We have done Jennings, Masterton Homes, Clarendon, Stockland, Delfin Lend Lease, Australand—so a bevy of their people have come through our course. You do not become an expert on environmental construction by doing a two-day GreenSmart course, but at least you are aware of some of the drivers and some of the incentives.

**Ms GEORGE**—Are you starting to see this reflected in some of the designs?

**Mr Gersbach**—We saw a recent survey undertaken in HomeWorld. It was a national survey of about 367 builders and about 600 home buyers out at HomeWorld, which is the largest display village in Australia, located in Western Sydney. The issues ranked as the top three that clients had been aware of and were asking for had to do with energy reduction: orientation, insulation and I cannot think of the other. I think it had to do with thermal massing. So even that idea of building fabric—

**Ms GEORGE**—That is a hopeful sign.

**Mr Gersbach**—Yes, it is a hopeful sign.

**Ms GEORGE**—So they are not all going to duplicate the McMansions minus eaves.

**Mr Gersbach**—The industry is extremely efficient in building houses. You can buy a house in New South Wales for less than the taxes and charges that are part of that house and land deal. Taxes and charges in New South Wales are about \$130,000 on a \$530,000 job—that is section 94 contributions, contributions to infrastructure, stamp duty, GST et cetera. You can buy a house—a project home—for less than \$100,000. So the industry is extremely efficient in producing a good. If things are such good value, it is no wonder that consumers want them. It is hard to criticise the industry for being so efficient. What they have not done, of course, is incorporate all of the things which go to make a house more sustainable, so part of the GreenSmart message is that those houses can be more sustainable but they need not look any different to the one next door. So that sort of mainstream approach to GreenSmart application has been a key message of that initiative. This is the *GreenSmart* magazine—I have two copies of that here to share with you—which is our attempt at taking a message to consumers about the advantages of living comfortably in that sort of domestic construction.

**CHAIR**—Great. Thanks, Wayne.

**Mr Gersbach**—Not a problem at all.

**CHAIR**—We appreciate you making the time available, and thank you for your submission.

**Mr Gersbach**—Could I just make one last comment, if that is okay?

**CHAIR**—Sure.

**Mr Gersbach**—I am looking at an article from an environment magazine which just came out a couple of weeks ago, and there is a chapter in there called 'The ratings game', which looks at a number of tools, whether it be NatHERS, Accurate, Basics, FirstRate, the Green Building Council green star, BREEM or LEED—there is a myriad of rating tools out there at the moment.

**Ms GEORGE**—Is that a good or a bad thing?

**Mr Gersbach**—It is a crappy thing.

**CHAIR**—Does that capture that issue?

**Mr Gersbach**—Yes, it does.

**CHAIR**—We would love you to leave that behind, because we have been hearing all day about that problem.

**Mr Gersbach**—The message, from our point of view, is that if your regulation is set at the community acceptable standard from a sustainability point of view, that also can become the market tool. You do not need a myriad of other market tools out there to rate your house. If Basics, for instance, set a benchmark, eventually there would be 40-25—40 water reduction and 25 energy reduction as of July. In a couple of years time it would be 40-40 for all residential construction in New South Wales, including alterations and additions. But if the 40-40 is the regulatory benchmark, it will take probably about half a day for the industry to be out there saying, 'But I've got a 60-60 house. Buy mine, because it's better.' So you do not need another tool to rate it, because the 40-40 is already a measure. Whether it is 45-45, 80-80 or 120-120, whatever you achieve above regulator practice will simply be the rating tool. So there is no need to develop any more or to throw money at them; you really need to focus on where your regulation is set and make that understandable to the home-buying public.

**CHAIR**—That is a strong theme that keeps come through: that there is a lot of good stuff going on in these tools, but it is all over the place.

**Mr Gersbach**—Yes, exactly.

**CHAIR**—Thanks, Wayne. We appreciate you making the time available.

[5.04 p.m.]

**JAY, Ms Dianne Mary, Chief Executive Officer, Planning Institute of Australia**

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

**Ms Jay**—I would. First of all I would like to apologise on behalf of Marcus Spiller, our national President, who could not be here today but certainly would like to be, and I think he is here in spirit. The institute has made two submissions to the inquiry. The first is a series of research papers that we commissioned from RMIT, and the second is our revised *Liveable communities: A national agenda* policy framework. *Liveable communities* was first put in place in 2001. Dare I say, it was a great thing—PIA punching above its weight in policy terms—but it was probably something of a wish list, without a proper funding framework to support it. While the rationale for doing those things was good, it was not necessarily thought through with an appropriate implementation model. In my opening statement, I would like to really focus on term of reference 5, which concerns ‘mechanisms for the Commonwealth to bring about urban development reform and promote ecologically sustainable patterns of settlement’.

It is PIA’s view that a defining characteristic of Australia is the capacity to build great cities. For over a decade now, since the inception of such surveys, Australian cities have regularly topped the global league ladder for liveability. Current and previous generations of planners can take a great deal of credit for this outstanding world record of liveability—and you would expect me to say nothing less, I am sure. Against this, we need to contrast the fact that across municipal Australia planning has become a battleground—and I think there was reference to that in discussion with the Housing Industry Association. Planners face mountains of DAs, and they deal with increasingly complex rules at both state and local levels. Often they are forced to live with undue political intervention in the practice of their planning judgment.

In the institute’s recent national survey on planning education and working conditions, some members even described their workplace as toxic. This is a real concern for the profession, and it also has implications for the capacity of planners and the nation to achieve the desired outcome of sustainable development. We are experiencing a significant undersupply in the planning labour market at the moment, which is causing some difficulty not only in rural and regional Australia but also in metropolitan areas. Australia has produced some great metropolitan and regional strategies. But the sponsoring governments have been underwhelming when it actually comes to implementation, especially on those local issues like building up densities around suburban activity centres. Whilst planners have an urgent desire to see more strategic planning happening, they do not always necessarily have the support of their local government councillors, in particular, to achieve those sorts of outcomes.

There is little doubt that we are becalmed in our pursuit of the great Australian city, but concern about social divides and the sustainability of our cities is rising, and we need to take a fresh national leadership approach in this area, in the view of the institute. We need to look beyond the previous models of Commonwealth involvement in urban policy—for example, building better cities and the multiple interventions in urban and regional affairs of the past—and look at engaging all three spheres of government to work more cooperatively to achieve the sorts of outcomes that are implicit in the terms of reference of the inquiry: sustainable cities and towns, socially, economically and environmentally.

In the past, the pre-eminence of the Commonwealth as a tax-raising sphere of government meant that it was often called on to undertake direct intervention in these areas, which was not necessarily its constitutional responsibility. Now, with the introduction of the GST, we are actually seeing more of a capacity on the part of the states to undertake some of those interventions in their own right, in their own time and funded in the way they would like to see them funded. With that in mind, why should the Commonwealth re-enter the field of urban and regional policy? It certainly is the institute's view that it should. The Commonwealth has, in managing the economy, used policy instruments that are aspatial—so monetary and fiscal policies, competition policy reform and so on. These levers have been used extremely effectively in the last two decades to really change the nature of the Australian economy.

But we would argue that there is mounting evidence that in a globalised economy the continuing competitive advantage that can be wrung out of these macroeconomic levers and settings is diminishing and it will not be sufficient for us to maintain prosperity and global competitiveness. They need to be supplemented by strategies to build centres of excellence, foster clusters of industries and attract a highly skilled labour force. Put another way, the institute's view is that at the spatial level more opportunities need to be created to give us a competitive edge.

Modelling work recently undertaken by NIEIR, the National Institute of Economic and Industry Research, has shown that a more sustainable Sydney metropolitan region would enable the New South Wales economy to be \$1.4 billion larger than it otherwise would be in 15 years time. As a consequence, the Australian GDP would be boosted by \$1.7 billion and there would be 20,000 more jobs in New South Wales and 24,000 more jobs across Australia. Extrapolating from this, the national economic pay-off from good urban management is likely to be in the order of \$9 billion to \$10 billion per annum in GDP growth. A substantial proportion of that, of course, comes to the Commonwealth in taxes. The Commonwealth, in fulfilling its obligations as a manager of the economy, needs to consider these issues much more closely than I think there has been an imperative to do to date.

The interconnection of policy decision making calls for a coordinated urban policy framework embracing all three spheres of government, and we have put a model of that kind to the inquiry. Subsidiarity is the fundamental principle on which that framework is based, so it recognises that policy development implementation must be undertaken at the local level, where it can be designed and fitted appropriately to local conditions. Two examples of subsidiarity at work in an Australian context are, of course, national competition policy and the national action plan for water and salinity. In the case of the national competition policy, the Council of Australian Governments signed off on a set of overarching principles to boost openness in competition in Australian markets. We believe that a similar system is replicable in terms of sustainability to



bring together the three tiers of government to achieve similar outcomes in a similar way. There is a productivity dividend—as I just demonstrated by quoting the research—that will come from urban improvement, and that can be reinvested in improving the infrastructure and the future of our Australian cities and towns. We believe this sort of approach is critical.

The model of Commonwealth urban and regional policy promoted by PIA has four key elements: firstly, the adoption by COAG of sustainable development targets set out in a national COAG endorsed charter; secondly, the formulation of specific packages of policies, strategies and investment plans by states, territories and their local governments, to be set out consistent with that charter and to be endorsed by the sustainable development commission; thirdly, the establishment of an independent Commonwealth body to assess the robustness of these policies, strategies and investment plans and monitor their achievement of the targets and milestones under the charter; and, fourthly, the provision of Commonwealth funding to the states and territories through that productivity dividend contingent upon their formulation and delivery against those particular plans. I can elaborate on the four elements of the plan if you would like me to.

**CHAIR**—Please do.

**Mr McARTHUR**—How about some questions?

**CHAIR**—Would you like a question before we elaborate?

**Mr McARTHUR**—I would like a bit of dialogue.

**CHAIR**—Could you please elaborate on those four points of the plan, Ms Jay?

**Ms Jay**—I am happy to. The first is an Australian sustainable development charter. The idea is that COAG would set time bound triple bottom line targets, so there would be targets and objectives set around economic, social and environmental outcomes. They might relate to things like the proportion of households within a specified distance, say 400 metres, of quality public transport; also on the social side, education and housing living standards; and the proportion of households below the 40th percentile in the income distribution suffering housing stress. So there would be some measures around the affordability of housing. In economic terms they might relate to the cost of road congestion, the percentage of metropolitan jobs accessible via a 30-minute public transport ride, the growth in service exports from urban regions and so on.

The setting of these targets is not necessarily rocket science and in the submission that we have made we have suggested quite a number of areas, looking at per capita use of consumption of water and per capita consumption of energy over time as part of the key milestones that you might build into the framework. The institute was keen not to try to premeditate what the specific measures might be but, rather, to say that the charter and the establishment of those targets was eminently doable. They exist in the European context. Some local governments here and in New Zealand have made some efforts towards putting those sorts of targets into place and then to managing against them.

**CHAIR**—Once the targets were agreed through that collaborative process through COAG, you would then say: ‘Knock yourselves out. Go to it.’ What would be the first step? Are you imagining that the strategy development would be ticked off prior to implementation?

**Ms Jay**—Yes. What we saw happening was a first tranche of funding being made available to states.

**CHAIR**—To get cracking.

**Ms Jay**—Yes, with a commitment to work with regions or local government areas or groups of local government areas to develop a strategy for the achievement of the agreed outcomes and targets that were part of the charter.

**CHAIR**—Would you fund that improved governance arrangement as your down payment?

**Ms Jay**—That is right, yes. This would cause a leveraging up of the standard of policy development and the focus on sustainable outcomes from all jurisdictions and would be inclusive of regions. That first round of funding provides for the policy to be developed. The policy then comes back to the independent commission or whatever you might like to call the body that would have responsibility for overseeing the outcomes. We see this happening over a 10-year window, so it would be a 10-year program of activity. At the first stage, funding for that policy would be submitted and then further rounds of funding occur, dependent on an independent assessment of those policies that they will achieve the outcomes or are expected to achieve the outcomes that they suggest they will. After that, further levels of funding occur, dependent on the achievement of milestones established over the remaining period.

**Ms GEORGE**—Could you elaborate on the national spatial plan? I like the idea that that is kind of lacking in the nation’s visions for the future, and it is having a decided impact in terms of a lot of government services and problems that confront the community and governments. How would you set about establishing such a national spatial plan?

**Ms Jay**—There are a couple of ways that it could be done. One is through COAG commissioning some work to be undertaken to develop the parameters of the charter, the scope of that plan and how far it wanted to go across the triple bottom line outcomes that we are proposing should be built into a broad based sustainability charter. I think another worthwhile initial step would be to undertake some further econometric modelling so that we can establish from the back of the envelope extrapolation on the current small amount of research the basis that we claim this as fundable—so the productivity dividend. I am sure it is there, but clearly that research needs to be undertaken in order for the funding to be determined. We assume in our submission that a third of the tax return might be applied, which would mean \$1 billion per annum for 10 years, so we envisage a \$10 billion funding program to underpin the implementation of the charter. If we are talking \$9 billion or \$10 billion per annum as a productivity dividend—a third of that in tax—we are talking only a third of that again being invested to be able to achieve that sort of outcome over that time frame.

**CHAIR**—We have had some submissions about the lack of research, measurement tools and agreed metrics on how we are travelling. Are you seeing that as part of this work or as something carried out in parallel? How are you imagining that coming forward?

**Ms Jay**—There are a lot of existing metrics and a lot of the debate is around preferred metrics rather than there being a lack of research or lack of capacity to put those in place. I think that we need to be careful not to get too carried away with what some of those core metrics might need to be. We know that, for example, water consumption per capita is rising and there is no apparent arrest to that, based on the current policy settings. Having a target, which is a reduced consumption per capita, and then relying on the subsidiarity model is what we are saying, so that you let individual jurisdictions determine how best to achieve that outcome but that their funding flow is dependent on achieving it. We are not saying that the metrics have to necessarily be at a micro level. If you set them at that macro level, let the federation do its job and for those local decisions to be put in place to achieve that outcome.

**CHAIR**—Where that theme has arisen most strongly was around the social dimensions—concepts of wellbeing. The health community have been saying that more sustainable cities make for healthier people. That is an area where intuition has a resonance but there is certainly not a lot of data to measure the benefits nor the tools to capture those benefits. There are surrogate measures you could put in and assume that distance to transport, public open space and housing bunched together equal wellbeing. The health community were asking: what about the health outcomes and health consequences?

**Ms Jay**—Certainly that is an area that we know we can do things in to reduce child obesity, for example. I think you are right. The metrics are clearer and are going to be easier to put in place in some areas than in others, but there are existing ABS measures that we can use to help us to establish some initial parameters.

**CHAIR**—It is no argument not to get started.

**Ms Jay**—Yes, I think that is right. There are endeavours to get some of that identification of best practice in place. ASBEC, which has recently been established, is one of those endeavours in green measurement tools.

**Mr JENKINS**—Quite frankly, I am overwhelmed by all the information that has been given. I think it is terrific and thought-provoking. There have been some very good suggestions about how we at a federal level can constructively involve ourselves. A lot of things that I had needed clarification on have been clarified in this discussion. I apologise for not asking a question. I wanted it to be a dialogue, Mr McArthur, but I am quite happy with a monologue.

**Ms GEORGE**—The background papers will be useful.

**CHAIR**—We were talking about it just before you got here. You have provided an excellent body of work and input.

**Ms GEORGE**—Were some of these background papers drawn from RMIT?

**Ms Jay**—There are two things that you have in the submissions. One is some research which was commissioned from SGS, which is a consulting firm, and was quoted by the HIA back in 2001, of which our current president happens to be a director. There is also some further work which we commissioned from RMIT only in the last 12 months. There are some very good suggestions there about possible approaches to areas like energy, water and housing affordability.

Again, we are much more concerned with making sure that the appropriate governance structure is in place, that there is a positive engagement of all three spheres of government and that there is a shared view about what the national outcomes could be rather than PIA saying, 'We reckon it should be X or Y.'

**Mr JENKINS**—You touched upon this. You have talked quite correctly about the three spheres of government. Therefore, we would hope that local government being at the table at COAG might get that wider view, given all the different LGAs that would have to be represented by one person at the table. One of the things that we always come back to is the capacity of a local government unit—

**CHAIR**—On the ground.

**Mr JENKINS**—on the ground to pull it off. Subsidiarity is really very important. This is often a dilemma when we come to recognising having a national approach that will be delivered at a local level. We have to give the tools and the encouragement for that model. Sometimes we just need to ask whether it can be pulled off when it is dependent upon professionals or—and you touched upon this, too—the willingness of elected officials to be involved.

**Ms Jay**—It is a problem. I guess there are a couple of responses to that. One is that there might be incentives put in place for local government areas to work collectively on strategy.

**Ms GEORGE**—Through ROCs or whatever.

**Ms Jay**—So you get groups of councils working together or something akin to the National Action Plan for Water Quality and Salinity, which might have an expectation for certain regional outcomes. So that is one of the options available. Certainly at a local government level there are some specific governance issues, which again you could actually build into this model. There was earlier reference to the development assessment forum and its work around what might be done to improve governance.

To achieve any real change in that area you need a three tiers of government agreement to look for better outcomes in terms of how councils go about making their decisions: whether they are made by councils themselves, whether they are delegated, the extent to which they are delegated and the incentives that might be in place for councils to actually develop robust, effective, forward-thinking policy frameworks in which the experts can then make their decisions. From an institute point of view we see the South Australian development assessment panels as leading practice and the development assessment forums also noted that as a better governance mechanism that others currently.

**CHAIR**—Can you describe why they are better? What do they look like?

**Ms Jay**—Okay. A development assessment panel is legislated in South Australia but councils may at the moment establish themselves as the panel, so when they are making planning decisions they form themselves as the panel. What the legislation envisages, though, is that the panels will actually be made up of councillors and professional experts. The professional experts—it is recommended—should outnumber the councillors in decision making. So the responsibility of council then becomes the policy framework and the setting of the expectations

reflecting the expectations of the community and the expectations of council. The development assessment panel is responsible for decision making. The panel might delegate that responsibility back to planning professionals in the council or take decisions in its own right sitting as an assessment panel.

**CHAIR**—Is the panel situational or is the panel a standing panel?

**Ms Jay**—It is a standing panel.

**CHAIR**—So if you had a coastal development and you wanted to bring in someone who was a marine hydrology expert, you could not reconfigure the panel for that particular instance?

**Ms Jay**—They can call on expert advice.

**CHAIR**—Okay. So they can drag someone in off the interchange bench but they cannot reconfigure the panel formally for each different issue.

**Ms Jay**—No. But it is envisaged that the panel may include a planner, an architect, an urban designer and councillors. The current changes proposed to that legislation—the draft which has just closed for comment in South Australia—envisage those development assessment panels being made compulsory and that the mix of councillors and professionals would be a compulsory requirement. Whether that survives through the parliamentary process is another thing. But what it starts to do is to separate the policy making from the decision making at a local government level, which deals with one of the issues that the Housing Industry Association were referring to about consistency of outcome. You are more likely to get consistency of outcome.

One of the things that we found in our national inquiry into planning employment and education was that many councillors coming into local government often do not understand the decisions that they are required to make and the legislative basis for the decisions that they are making. A mayor speaking to us at our conference in Hobart said, ‘I’ve been there when my council has made a decision one week which is completely inconsistent with a decision it’s made the week before.’ Those councillors who are honest will oftentimes tell you that they certainly did not know what they did not know when they came into their position. As an institute we have called for some compulsory training for councillors when they are elected in these areas—before they are committed to sit on, for example, a development assessment panel—which we do see as the ideal.

**Mr McARTHUR**—I commend you on your submission. It is quite an extensive thesis of all the issues that we have raised. Did the council sign off on this submission? Who developed it?

**Ms Jay**—The national council of the Planning Institute.

**Mr McARTHUR**—Did they read it?

**Ms Jay**—You bet, or I damn well hope so! We spent plenty of time discussing it at council.

**Mr McARTHUR**—What do you think the role of the planners is in improving a sustainable city given that there is always an argument by the local council or parliament on the role of town planners? What do you think your institute or profession can contribute to making cities more sustainable?

**Ms Jay**—It is clear from the processes that planners go through to become planners. The education of planners is heavily focused now around sustainability, strategic planning and thinking about the issues that are being addressed by the inquiry.

**CHAIR**—Do you have continuing professional development for old planners?

**Ms Jay**—Indeed we do, yes. That is a core function of the institute, of course, as it is for all professional associations. We accredit university courses around Australia, which is a prerequisite for entry to membership of the institute. Then we have a requirement for members to undertake continuing professional development.

**Mr McARTHUR**—We still have not resolved what you are going to do to help the argument. You have given me some nice words about what a good job you do but there would be a body of opinion that would think you do not contribute anything to the side.

**Ms Jay**—I actually think it is about empowerment of planners. Oftentimes they find themselves in a pretty difficult position between the community—the NIMBYs and the BANANAs—

**CHAIR**—What are the BANANAs?

**Ms Jay**—Build Absolutely Nothing Anywhere Near Anybody. The NIMBYs and the BANANAs can be quite difficult for planners and developers to deal with. Planners are also dealing with councillors who may, on the one hand, set a policy framework and then decide the next day that they are not going to apply it in decision making. It is a pretty frustrating place to be but they certainly do have the skills to improve the nature of our urban environments.

**Mr McARTHUR**—Let us just challenge the thesis, though. You are putting the argument that the planners always get it right. Let me put the argument that there are a number of projects that have not gone right, that planners have got it wrong and that the planners do not always know best. Let me put that argument. What is your response to that?

**Ms Jay**—Planners are human. They all do their best at any point in time. When we look out the window here and we look at any other city in Australia, we see an evolution of planning ideas. If you look at Walter Burley Griffin's great plan for Canberra, there are a lot of elements that still stand today as things that we would like to see in our cities—open spaces, green density around centres of employment and so on.

**Mr McARTHUR**—You have to have a motor car to run it.

**Ms Jay**—Exactly. What do we have? We have car dependency, and we have all the issues that go with that—air quality and so on. I am not suggesting that planners get it right all the time, not

by any stretch of the imagination, but they do have some good skills that can be applied locally and nationally to identify better outcomes.

**Mr McARTHUR**—Tell us what contribution you really make to this argument, though. You have given us some nice words but what real contribution do you make? Let us say you take the planners out of the system and say, ‘Righto. We’ll just carry on and let it run.’

**CHAIR**—Can I say what you are probably thinking? You read the submission—

**Mr McARTHUR**—I have read the submission, and as a matter of interest I am a trained town planner.

**CHAIR**—I know. It is the continuing professional development thing.

**Ms GEORGE**—He is being the devil’s advocate, I think.

**Mr McARTHUR**—I have seen a program in England where town planners got hold of a whole lot of urban redevelopment and they got it dead wrong. All I am saying to you is that there is a body of opinion that the planners do not always get it right, so what changes can you really make, especially in an established urban regime, to make a difference?

**Ms Jay**—I can only reiterate what I said. I think planning is an incremental process in many respects in that you build on the practice that has gone before you and look to change and evolve that. There have been mistakes made in urban renewal, but by the same token there are some great developments now that represent a real sea change in the way we create our communities.

**CHAIR**—As reluctant as I am to do this, I would like to pick up on your point, Stewart—

**Mr McARTHUR**—You would not give me any credit, would you?

**CHAIR**—We are often told that other cities are better than ours, that European cities and older cities where planners were not on the radar screen have a certain untidiness about them that adds to the dynamism—

**Ms Jay**—and the character.

**CHAIR**—Yes. When we were in Brisbane talking with Jude Munro, the CEO of Brisbane City Council, she said most cities can strive to be the neatest, nearest correct entry but the ones that really hum are sensational cities and there is something else going on about them and in them where vitality is as crucial as sound town planning. The sanitised perfection of a perfectly planned community is not what people want.

**Mr McARTHUR**—That is exactly the point.

**Ms Jay**—For that sort of spontaneity, the plans cannot be rigid. There has to be some flexibility for local response, to local need, to recognising the value that something is going to add even if it does not fit entirely within the box of the plan for a particular area. There does

need to be that sort of opportunity for there to be a reflection of community need and expectation and for ideas to flow.

**Mr McARTHUR**—To continue the argument of the chair, we had a witness who said that the better towns were the ones that grew up with a genuine unplanned position—and he mentioned widely spaced streets and plenty of access. That was the way it was done and it worked pretty well.

**CHAIR**—Street front shops with houses above and the garage around the corner—

**Mr McARTHUR**—The lack of planning actually worked quite well and when the planners got hold of it they mucked it up. That was his point of view—I am not saying it is right.

**Ms Jay**—I think that is a little simplistic. I think we are a bit more sophisticated than that in that there needs to be a frame of reference both for developers and for the community in terms of the sorts of outcomes that we are looking to achieve. A plan provides that frame of reference and a degree of certainty.

**Mr McARTHUR**—What about the heights in Sydney and the density of the CBD in Sydney? Are you an advocate for more people living in the central business district or do you think they ought to go to the suburbs? Do you think the height ought to be limited? They are the arguments that I hear in some of the urban settings. What is your view on that?

**Ms Jay**—There are a range of views amongst planners, as you probably well know. Certainly the move towards greater urban density, being very conscious of the implications of sprawl, looking at ways to ensure that we get the most effective use of the land—

**Mr McARTHUR**—You do not actually come up with a view here, to be honest. I know it is a difficult issue, but that is the sort of thing we are interested in. We have had a look at a couple of these urban renewals that, in the assessment of some of us on the committee, have worked very well because they have some good planning and take into account all the issues. On the other hand, some of the urban sprawl—just let it go—has not worked out that well.

**Ms Jay**—No, indeed.

**CHAIR**—But it is planning for diverse land uses too. It was not, ‘Chuck all the nasty stuff over there; that happens to be where people earn their living. Then way over here we will put something where they hang out to sleep at night. You want some recreational opportunities? That is way over there.’ In the framework that you are talking about you would put in place markers of accessibility to those various aspects of people’s lives and say, ‘Go to it, knock yourselves out and make it happen,’ rather than come up with some kind of SimCity software driven thing.

**Ms Jay**—Yes, clearly multiuse development nodes, people having access to services and affordable housing in close proximity to where they work.

**CHAIR**—So we pick up those good bits and then say, ‘You guys work out how best to go about it’?



**Ms Jay**—Absolutely.

**Mr JENKINS**—But, as with any profession, it has been a cultural change. I was going to make the mea culpa that about 25 years ago I was a raw councillor involved in making planning decisions and learning on the job, but my observation there was driven by elected officials who were saying, ‘No, don’t worry, son; use the piece of dirt.’ That was all it was about. To their credit, the town planners as a profession were the people who started to drive the change. It is the elected officials of whatever sphere who have set the regulatory frameworks and we are now changing that. The question that I wanted to ask follows on from Stewart’s questions. At the end of the day—I take my local area as an example—town planners will set out what I described as the ‘ideal’. It is on the basis that certain bits of infrastructure and architecture will be put in place—for instance, the use of quality public transport. But we know that the quality public transport, perhaps, is not going to come. Town planners must have a dilemma as to whether you do the right thing and say, ‘This is how it should be,’ or whether you come back a level and say, ‘Really, we have to do the best fit for what might actually happen.’ I am happy for them to say, ‘This is the absolute ideal; we will force the decision makers to make sure that the rail gets there.’

**CHAIR**—Now that you are not on council, are you happy to do that?

**Ms Jay**—There is a degree of pragmatism in every profession and in every decision-making role. Clearly, planners are not going to design and expect utopia to be created, no matter how desirous they might be of that outcome. They will look at what is appropriate and achievable for the community and look to work with councillors in policy setting around those sorts of parameters. We see that what the inquiry and the framework have the opportunity to do is perhaps leverage that up where the aspirations might not be quite high enough at the moment.

**CHAIR**—Would you back that up with ratings? The federal government has funded some sustainable land rating pilots. I would imagine some of the work that you are tasking the national charter folks with would go to looking at how to better use existing levers and AusLink. You are not going to get a diamond until you have got your act together. Even local councils with the Roads to Recovery program and the financial assistance grants can make sure that active transport planning is as much a part as pavement planning and things of that kind. Is that part of the scope of that activity in your mind?

**Ms Jay**—We see that as being part of it. One of the things that we have also referred to in our submission, and subsequently in relation to the framework, is that it also has the capacity for existing programs to be retrofitted within the framework, so a Roads to Recovery or an AusLink, for example.

**CHAIR**—Or even first home buyer grants and Defence Housing Authority estate.

**Ms Jay**—They could potentially be linked to the outcomes. The framework could be used to obtain more leverage for the Commonwealth, in terms of the sorts of outcomes that the Commonwealth might be looking for from those programs, by linking them into some of the other activity.

**CHAIR**—We did compliment you on the submission, didn’t we?

**Ms Jay**—I believe you did.

**CHAIR**—If you would like to forward the committee some material on your continuing professional development programs, we will make sure it is passed on.

**Ms Jay**—I am happy to do that.

**CHAIR**—It was a good contribution that was valued and appreciated.

Resolved (on motion by **Mr McArthur**):

That this committee authorises publication, including publication on the parliamentary database, of the proof transcript of the evidence given before it at public hearing this day.

**Committee adjourned at 5.45 p.m.**