ENVIRONMENT AND RESOURCES COMMITTEE

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HEARING INTO ENERGY EFFICIENCY IMPROVEMENTS

TRANSCRIPT OF PROCEEDINGS

FRIDAY, 11 SEPTEMBER 2009

Brisbane

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Committee met at 9.01 am

CHAIR: Good morning. I call this public hearing of the Environment and Resources Committee to order. The committee conducts this hearing pursuant to the resolution of the Legislative Assembly of 23 April 2009 that appointed it. This resolution requires the committee to inquire into and report on the economic and environmental potential provided by energy efficiency improvements for households, communities, industry and of course government.

The committee is to report to the Legislative Assembly by 30 November this year. In undertaking this hearing, consideration will be given to the following (1) the economic and environmental costs and benefits arising from energy efficiency improvements; (2) potential barriers and impediments to improved energy efficiency; (3) potential policy options for energy efficiency improvements with an emphasis on initiatives that are cost-effective for individual producers and consumers; and (4) the role of the Carbon Pollution Reduction Scheme and other Commonwealth government initiatives in encouraging energy efficiency.

At this point I would like to introduce to you my committee. I am Carryn Sullivan, the chair and member for Pumicestone. I introduce Julie Attwood, the member for Mount Ommaney; Peter Dowling, the member for Redlands; Mark Ryan, the member for Morayfield; and my deputy chair, Jeff Seeney, the member for Callide. I have two apologies from committee members today: Simon Finn, the member for Yeerongpilly, and Chris Foley, the member for Maryborough, are unable to make it today.

These proceedings today are lawful proceedings of the parliament and subject to the Legislative Assembly's standing rules and orders. Witnesses here today should have been provided with the instructions to the committee regarding witnesses adopted by the Legislative Assembly which the committee is bound to follow. Have all the witnesses read the guidelines? Thank you. I ask that Hansard note that.

Under the guidelines, you may object to answering any question put to you on the grounds that the question is personal and not relevant, or the answers may incriminate you. The committee will not require you to take an oath or affirmation. However, we expect our witnesses to respect the proceedings. Recordings of today's proceedings except by Hansard are not permitted. It is our intention to keep to the times of the hearing. We will finish at 3 pm if not before. We have a lot to get through today, so to avoid the need for a further hearing please keep your answers succinct. If you take questions on notice, we ask that you provide your answers back to us by next Friday, which is 18 September.

HAWTHORNE, Ms Fiona Margaret, Energy Audit Worker, Lifeline Community Care Queensland

KUNZ, Miss Nadja Catherine, CoChair, Research and Policy Group, Queensland Youth Environment Council; Member, Queensland Youth Environment Council

PARMENTER, Ms Linda Maree, Manager, Policy and Communication, Queensland Council of Social Service

RALPH, Mrs Bernice Therese, President, Ipswich Regional Tenants Group Inc.

CHAIR: Before I ask you to make a brief opening statement, we are going to make this inquiry today as informal as possible. We are a bipartisan group of members of parliament. That means we represent both government and non-government members. We are all very keen to hear your responses today to our questions. We hope to put some recommendations to the government from our report on 30 November with things that the government can not only take seriously but also take up. This is your opportunity today to put your point of view across. I hope it goes very smoothly and I wish you all success today.

Ms Parmenter: I am the manager of policy and communication at the Queensland Council of Social Service. One of my responsibilities in that role is to manage the work that we do in energy and climate change policy. To give you a bit of information about our interest in climate change and energy policy, obviously QCOSS is a peak body in the community service sector. Our other role is to speak on issues affecting people in poverty and disadvantage. Utility stress, particularly through rising electricity costs, has been an issue of concern for some time.

Last year in July the previous Minister for Mines and Energy provided our organisation with some funding to take on a consumer advocacy role on electricity issues. That is a broader consumer advocacy role, but we do have a special focus and interest on low-income and vulnerable households within that.

In my opening comments today, I will not repeat everything that is in the submission that we have already provided. I want to start with where I concluded in that submission, and that is the urgency of having an energy policy that coheres the range of activities that are going on including things in the area of energy efficiency that puts the issue of equity quite central.

I think the need for energy efficiency and the drivers for it are fairly clear. The need to reduce greenhouse gas emissions and the need to stem the rising costs of energy are the two major drivers, I believe. I think it is also obvious that there is a need for government intervention in this area when you look at some of the market failures that exist and that prevent people from acting in energy efficient ways.

Having accepted those key drivers, I think there is a real risk that, if we are only driven by the need to reduce greenhouse gas emissions and reduce costs and we do not look to other broader social objectives which we might want to achieve, as we move into a carbon constrained future we risk widening the gap between rich and poor people in our society. There will be those who can respond to the challenges of climate change, those who can adapt, those who can take up the things that are on offer to help them with that will prosper, and those who cannot. Here we are talking about people who tend to live in the least thermally efficient houses, are in the rental market, have the lowest incomes, spend the highest proportion of those incomes on essential living such as electricity, food and things that are likely to be affected by rising costs associated with the CPRS. Those people are really going to struggle.

One of the issues is that people are looking at low-income households and vulnerable houses as a tack-on in terms of energy efficiency policy. We need to put equity front and centre. It is not just that we need to think of a few extra programs for low-income households. We need equity to be a lens through which we assess all of the policies, steps and actions that are taken. There is a lot in that package, of course, because we are talking about regulation of the energy market, the retail market and the distribution market. We are talking about energy efficiency measures. We are talking about a whole range of potential strategies such as energy efficiency targets that government could adopt.

I think with each and every one of those we need to have a look at what is both the impact on consumers more broadly and the social impacts but also specifically for the most disadvantaged groups in society. If we did that, I think we would see some differences in the way some things are currently being done, in the way some of the current government programs are structured and look like.

I will give you one example which relates to electricity pricing. There is considerable work going on at the moment looking at whether pricing signals could be used more effectively to encourage energy efficiency. The review being undertaken by the QCA is undertaken largely without any reference to the impacts of the different pricing methodologies on consumers and without any reference to equity concerns. I think those things should be in the terms of reference when bodies such as the Queensland Competition Authority look at these things.

If we had an energy policy that prioritised equity, I think that would be a necessary component of such a review. By comparison, in New South Wales the same regulator there has set up a committee to assess the impacts on different groups of energy pricing in New South Wales. At other times when they have looked at energy pricing issues they have provided advice back to the government on the impacts, because that has formed part of their terms of reference. That is just one example, but I think an equity focus could inform a number of things such as the way we structure energy efficiency schemes, white certificate trading schemes and so on.

To conclude, I feel that the recently released ClimateQ policy has missed that opportunity. It is disappointing that the community section appears as a tack-on. There are not an awful lot of measures contained in that policy that will assist low-income people overcome some of the key barriers, which are upfront costs of energy efficiency measures and the issue of split incentives and the fact that they are predominantly in the rental market.

Mrs Ralph: I am President of the Ipswich Regional Tenants Group Inc. When we began, we were formed from public tenants. With the institution of the one social housing system, we are now social housing tenants because of long-term community housing tenants being able to be part of us. I did not write a submission on behalf of community housing tenants, just we public tenants. Not many tenants but some would still like to be able to take up the rebate offer for solar hot-water systems. We are in our homes and intend to stay in them. We know we can unless there are drastic changes in government. Not many but some have taken up the water tank rebate offer.

Some took part in the ClimateSmart program. The government had already installed water-saving devices in our homes. When the man from the ClimateSmart program came to one man's home he looked at the shower and said, 'The shower I would put in is inferior to that so we will leave that one where it is.' The tenant already had the power-saving light globes so he did not get any of those. He did get the timer. For public housing tenants there has not been a big take up of that offer because we have already been given the water-saving devices.

The thing that worries us is the replacement of hot-water systems. The government gave the edict that electric hot-water systems would go and there would be no more of them. It is the government that provides our homes with these fittings. I know it has been looking at replacement systems such as the heat pumps and gas hot-water systems where gas is available but we think it should start replacing them

straight away rather than wait. My electric hot-water system is 18 years old. How much longer it will last, I do not know. If it is going to break down soon the government will just give me another electric hot-water system. For the next so many years I will still be using a lot of energy.

All of our complexes have security lights, which is marvellous. The department has taken care of us. They burn from sundown to sun-up. A lot of energy is used. Could we not use solar power for those? They are there for our protection, and we appreciate that, but there must be a better way. A lot of energy is used in that time throughout all the complexes.

Private residents probably do not have that care shown by their landlords. If there was some sort of regulation where security lights had to be solar powered or powered by some other way it would be better for the private tenants. There were two incidents involving people in private units in the area where I live. One lady was attacked as she walked from the shops across the road on the driveway to her unit. There are no security lights. It was six o'clock and someone jumped her for her bag.

If any of you know Redbank Plains Road, you would know that there are heaps of units. A rape took place in front of a unit block simply because there were no security lights.

CHAIR: I think we certainly understand the position about security lighting.

Mrs Ralph: I mentioned double glazing in my submission. In the complex where I live we were fortunate enough to have double glazing installed. Through federal government money the department is installing ceiling insulation. That is fine. Where I live we are on the corner of two extremely busy roads, one of which is being almost doubled in size. An extra piece of land is being taken from our block for the turning lane for the other road.

Our area manager decided that it was going to be impossible for us to live there while all the work is going on. What is going to happen? Do they have to provide eight people with new premises or do they do something about where we live? The money that the council paid for that piece of land was used for our benefit—the eight of us—and we were given double glazing as well as insulation and big thick doors.

I did not realise until just recently that the double glazing kept the townhouse so warm that I did not put my heater on once all winter. It was only when I was dusting underneath it that I realised it was still covered and I had not brought it out this winter. It is a little bit expensive perhaps but in the long run it is certainly energy efficient.

Miss Kunz: The Youth Environment Council was set up in April 2007 and we report jointly to two members of parliament—Kate Jones, the Minister for Climate Change and Sustainability, and Geoff Wilson, the Minister for Education and Training. There are about 23 young people from various different disciplines and backgrounds. We are all volunteer members on the council. A group of us put together this submission. In the submission for the energy efficiency inquiry we really wanted to bring a youth perspective to the discussion and to emphasise some of the things that we felt as young people would help us to be more energy efficient.

Last year we completed a youth and environment survey. I have a couple of those here that you are welcome to take with you. Some of the big things that came out in that—although it was directly related to energy efficiency we were certainly asking questions about the barriers to young people taking environmental actions and behaviours—were cost and a lot of young people admitted to laziness as being a barrier. That highlighted for us that in order for the government to really target young people to be energy efficient you need to make it easy and cheap. Certainly the perception that energy efficiency is expensive needs to be changed because, in many cases, it can end up costing you less.

If you can target the campaigns in such a way that help people to realise the benefits it would make a big difference. Another thing that came out in the survey was that young people wanted the state and federal governments to take a lead role in environmental issues. In some cases they felt that they did not have the power to make a difference. There was a feeling that young people need to be empowered and feel that they can make a change. I would encourage the government to consider making sure the campaigns try to empower young people to feel that they have the ability to make a difference.

We did a survey with a few council members over the last couple of days to ask them what they had bought recently—the different products they had bought recently. You realise that young people buy a lot of things like iPods. A lot of people are renting so they buy toasters, battery chargers and other things for around the house. The things that they are buying may be different to what those in the other cohorts are buying. They are buying more electronic media. Underlying that was that the cost is a very big driver in the choices that people make.

There could be more work done on consumers understanding how much energy is being used by the products that they buy. If there was an energy-rating scheme that went beyond the whitegoods that we have at the moment—the dishwashers and washing machines—and went to a broader range of consumer items, that would make it easier for people to make efficient choices.

The other thing I want to mention is that it is really important to target young people. My opinion is that with young people who are leaving home the sooner they start being energy efficient the better it is in the long term. It is easier when you are leaving home as a tenant to encourage tenants to be energy efficient. I think we should be encouraging young people, when they are building their own homes or

beginning to buy new homes, to be energy efficient from the start. That will then carry through their whole life, hopefully. There is a really big reason for us to target young people in campaigns around energy efficiency.

I hope that you will find the submission that we have made informative and help you to perhaps formulate some policies that will target young people. We are always here as an advisory council. I have all the documents that are referred to in that submissions with me if you would like to look at them.

Ms Hawthorne: I am an energy audit worker in the energy audit program that Lifeline started up in March this year. I do home visits to people who are experiencing difficulty paying their bills with one of the major retailers that sponsors the program for Lifeline. I did not put in a submission because it is a relatively new program and I am still collecting data and identifying trends. I am happy to share my experiences thus far with the committee if needs be.

I am seeing a lot of people who are in the low-income bracket. They are a wide variety though. Some are homeowners who have fallen on hard times—they have become unemployed or the mortgage crisis has finally got to them. I am seeing public housing tenants who just cannot afford their bills because of the appliances that are installed and the lack of insulation. I think insulation in the ceiling is one of the easiest ways to reduce energy bills.

Unfortunately, a lot of renters do not feel that they have the power to have that done. Even though there are the programs for renters a lot of renters do not feel that they are in a position to ask their landlords for anything. This is very common. People will not approach their landlord about faulty appliances or leaking hot-water systems for fear of losing their tenure. Unfortunately, a lot of the houses that people are renting are in areas earmarked for development and the landlord says that they are not going to put any more money into the house.

I have seen people in the corridors around the tunnel areas who are impacted by that in as much as they cannot use their clothes lines outside and have either bought dryers or are suffering as a result—doing their washing twice and that sort of thing. These are people in very low rent accommodation. I am happy to share lots of those sorts of stories with you today.

CHAIR: Thank you very much. I was remiss at the beginning of the hearing not to introduce the committee staff. Could I introduce Rob Hansen, our research director, and Rachelle Stacey, our principal research officer. They have put in a huge amount of work. Probably about 16 hours a day they have put into today. I wanted to thank them. I want to place on record my thanks for all the work they have done. We really appreciate it. I also thank you for your submissions. We really appreciate all the work you have put in. They were quite concise and we are very grateful for that. We are now going to open it up to some questions. I will start with Mark Ryan, the member for Morayfield.

Mr RYAN: Thank you for coming in. The first question is to the panel generally. We can hear about all the means for government intervention and government mechanisms and we can talk about market signalling of prices and market failures, but I would like to hear about some attitudinal views that you have about why individuals themselves are not necessarily taking up energy efficiency measures. There are clear benefits and there are programs available. Is it as simple as it is an educational thing or is it an attitudinal thing—that is, people are resisting that change? I will open that up to the panel and see whether anyone has any particular views or anecdotes on that.

Ms Hawthorne: I would like to answer that. I am seeing a lot of people who do not feel that they have any power to change. They cannot afford to replace their existing appliances. That is a fact. Unfortunately, some of them have replaced their old appliances with whatever they can afford and invariably that will be not the most energy efficient appliance available.

Ms Parmenter: I would like to add some comments to that. I do not believe that the predominant cause of people failing to take up government programs is their attitude. I think there has been a lot of survey work that has shown that perhaps there is a gap in people's actions and people's beliefs and knowledge about the benefits of energy efficiency. I think that a large part of that gap, particularly for the group of people that our organisation represents, is to do with very tangible barriers that are not about attitudes but are about resources predominantly. Two key barriers are household resources, that is finances, and household tenure.

In terms of the upfront costs, even when government programs often do reduce them quite considerably, for a low-income household that has very little discretionary income, as Fiona says, they will replace things only when they fail and they will replace them with the cheapest that they can buy. But also the payback time for a number of energy efficient appliances is really too long, and of course it varies. I looked into buying a gas dryer recently and realised that I could not get payback even in 10 years. That is probably an extreme example, but I believe the average payback period is around three to four years. In a situation where we are talking about fixed appliances, that is particularly problematic if people are renting and their average length of tenure is more like 12 months. So I think they are the two key barriers.

CHAIR: Any more comments?

Mrs Ralph: I would just say this: there are quite a few families who have never had a new electrical appliance—a big one. They might have had a new jug and things, but they buy second-hand washing machines and fridges and then when they go they buy another second-hand washing machine and fridge. So they cannot afford to go and buy a new one and look for the most energy efficient; they look at the price, and that is what guides them.

Miss Kunz: I just thought I would quote a question that we asked in the youth environment survey—that is, why do young people sometimes do things that harm the environment? Some 43 per cent of 12- to 17-year-olds said that they are too lazy. The cohort is around 50 per cent of the older group saying that they do things that are bad for the environment because they feel that there is no alternative—51.5 per cent—and 37 per cent of the younger age group say that they do that because there is no alternative. The other big ones were that they do not have time and they are more concerned with saving money. So they are the kinds of things that are the barriers for action. Certainly, there is a lot that can be done to make people, as I said in the beginning, feel that there is an alternative, by giving the options when people are buying products—such as what is the energy rating on this appliance versus that appliance—and just helping them to see what the benefits are.

CHAIR: Thank you. Nadja, would you be interested in tabling that survey? I am pretty certain that the committee would be keen to have a look at that.

Miss Kunz: Yes.

CHAIR: Thanks a lot. I think we have to be mindful that, no matter what the outcomes are today, in terms of the recommendations that we make to government obviously there are huge economic constraints on government, particularly at this time. What we have to be mindful of is that this has to be a joint effort—a bit of a team effort. We have to get individuals, community groups, business and government on board to make any of these initiatives work because, at the end of the day, they have to be economically as well as environmentally viable. So if you could please keep that in mind.

Mr RYAN: I have a follow-up question just before we lose our train of thought. Linda, you mentioned payback time. I have been looking at that concept a little bit and I think it is a very important educational tool and a very important tool in making people realise the benefit of some energy efficient devices. But it seems like it is a bit of a double-edged sword at the moment because a lot of energy efficient devices are very expensive and the payback time is very long. In a way, the double-edged sword is that you either increase energy costs to bring the payback time of the energy device up or you lower the cost of the actual energy device. Do you have any other comments on that? Do you see any other views about how we can reinforce this thing about payback time as a good signalling mechanism for consumers?

Ms Parmenter: I do think there is an important role for education about these things, and I would agree with Nadja's comments about having energy efficiency ratings on a wider range of appliances. I guess you could incorporate something like some information about payback times. That could also be very beneficial for consumers in making those choices. In terms of how you reduce the costs on those appliances, no, I do not have any specific comments or any expertise around that. But, as I say, I do think that information, particularly information that is targeted to hard-to-reach audiences, would be a very useful thing. I think real-time information about energy use is also a very useful thing. Clearly, the monitors that are given out with the ClimateSmart home program are really good tools for letting people understand the usage of different appliances. If we could look at ways of providing that information more clearly, that would assist.

CHAIR: Did you have a comment, Fiona?

Ms Hawthorne: Yes, only in as much as if you are asking what might inhibit people from taking up the programs—for example, the ClimateSmart program. I personally asked for a ClimateSmart visit and I had to get permission from my landlord. My landlord declined, and apparently this happens a fair bit. I am not sure why, but that is denying that energy efficiency to low-income tenants. The reason my real estate agent gave me was that she did not want anyone looking at the wiring in an old house.

CHAIR: That is interesting. You would think that would be to everybody's benefit.

Ms Hawthorne: Yes. So I am not sure how—

CHAIR: So you think that is widespread, do you—that a lot of homeowners who have their properties rented do not want to have that done?

Ms Hawthorne: Because it requires the permission of the owner, as I was saying before, a lot of the low-rental accommodation is earmarked for development and there is not a lot of home improvement happening there. So it would not surprise me if that was widespread throughout that particular section of—

CHAIR: But they are just concerned about having to spend that money if perhaps wiring was seen to be inadequate.

Ms Hawthorne: I believe that the electricians who carry out the ClimateSmart home audits are obliged to report any faults that they see, because they are licensed electricians, and that could intimidate the owners of the properties. So that is just a bit of feedback.

Mrs ATTWOOD: My question is about renters, basically. You talked about the barriers before being finances and tenure. I guess renters feel a little bit powerless in relation to getting things done around their home. Some have spent many years in the same home, but it is hard to try to convince the landlord that they should actually be doing something to improve energy efficiency. How do you think the Queensland government might be able to intervene in that process? Also, have you got any suggestions about how it would be cost neutral in terms of getting bang for buck over a period of years or whatever for the government and also how government may be able to fund those types of solutions? Anyone can start. Bernice, you had some good ideas before about what could be done as far as outside lighting is concerned.

Mrs Ralph: Security lighting, yes. As I said, it burns from dusk till daybreak—so longer in winter and less in the summer. Sensor lights are a solution, but that means that they only come on when people move. So solar seems to be the solution. I think some of the newer streetlights are now set to work by solar. There would be some cost involved, yes, if they do it. But in the long run it certainly would save a heck of a lot of energy and save the government paying, as I guess they do, for electricity used.

Mrs ATTWOOD: That is one area; thanks very much, Bernice. What about Linda?

Ms Parmenter: Yes, I will make some comments on that. I am not sure I can give you cost-neutral solutions, though, but in our submission I have outlined a couple of solutions to removing the split incentives barrier or at least partially addressing it. This has already occurred in other parts of the world, but I think a property rating system where we look at the energy efficiency of rental properties would be a useful mechanism. It is more useful where renters have some choice over the properties they are selecting, and I know that there would be a number of people who would not be in a position where they can pick and choose the efficiency of their dwelling.

Actually, Fiona recounted something to me. Fiona is actually one of the members on our project reference group and she was telling me the other day about the number of renters who have to take on houses with pools, and pool filters of course are extremely expensive. This first came up because another member of our reference group who is a financial counsellor had said to me that he had had some problems with people who had to run pool pumps 24/7 because there is basically a requirement in their lease that they maintain the pool. My first reaction was, 'What on earth are they doing renting a house with a pool?' When I discussed this with Fiona, she clarified for me that many people do not have any option about it; they are the houses left at the bottom of the pile.

So an energy rating on a home would at least give a renter a chance of thinking about that. It would perhaps encourage landlords to think about investing a few dollars in something that would improve their property rating and thereby make their rental property more attractive. Whether it is appropriate for Queensland government or whether it is more appropriate at a national level, I cannot really say. There have obviously been a lot of moves by state governments to do things in the vacuum of uncertainty that we have at the federal level at the moment with the Carbon Pollution Reduction Scheme not being finalised. But I believe there is a national property rating system that is being developed at the moment and I think that would be very useful.

I also think regulatory obligations on landlords is another means. It does seem that that is one that is difficult to convince governments of. It does impose requirements and obligations around people's real property, which I think there seems to be a reluctance to do. When you consider the number of people who are actually in the rental market and how essential shelter is for our health and wellbeing, I think there is some justification there.

We could look at requiring certain levels of property standards before they can be rented. There is also obviously the possibility of offering further tax incentives to the incentives that landlords already have to encourage them to implement energy efficiency measures in those fixed appliances such as hot-water systems and insulation. Again, there is such a lot available in terms of government programs now. Ceiling insulation is an obvious one. It would not seem too onerous to impose on landlords a requirement that their houses be insulated before they are rented, for example.

Miss Kunz: I might just add to that, because I think it is a really important issue—the double-edged sword you have between tenants and landlords and whose responsibility it is, if you like, to implement energy efficiency and what can be done to overcome that problem. From a tenant perspective, if you are not sure how long you are going to be staying in a property it is probably not in your interests, even if you could agree with the landlord, to implement particular measures. If you are going to leave in a year's time, there is no incentive there. Similarly for the landlords, if they do not see a return on investment you can understand why they would not want to install energy efficiency.

I think disclosing energy efficiency ratings for private and commercial dwellings would help us. I want to quote a recent study by Reddy et al from 2008 that states that recent studies demonstrate that the mandatory disclosure of energy efficiency in the ACT show a very strong correlation between star ratings and house value, something in the region of three per cent for each star. So by encouraging disclosure of energy ratings for houses, when they go on the market people can actually make a choice as to whether they want to invest in an energy efficient property or not. There is also a great scheme in Canada which we have written about in the submission as well. They have a rating label that might be worth looking into, too, for households.

CHAIR: Good point.

Mrs ATTWOOD: Thanks, Nadja.

Mr DOWLING: I have found it all incredibly interesting this morning. I want to touch on a few points and then I will get to the question. The rental obligations issue is interesting, but I just wonder what pressures that might put on rent going forward. That is just for your thoughts, not necessarily for a comment. Linda, with utility stress, quite often price is used as an incentive, or an educational tool. It is a blunt instrument, but we use it to facilitate change of habit. I just wonder how we balance that price point versus education. Also, Bernice, you touched on an example of the hot-water service not being transferred for either gas or solar options in state housing. Fiona, you touched on the insulation issue again in rental

properties. With all of that in mind, can you give us some examples of how programs and initiatives that are currently offered by either state and federal governments are not working and how you see they might be addressed or amended to improve them? That question is to all of the panel.

Ms Hawthorne: I think with the insulation, the barrier is the landlord. That is where it stops. The tenant can apply, but they need the permission of the landlord and for the same reason that my landlord did not want any inspection of the house, I think that is a barrier in the low end. For the people who need it the most, their houses probably would not hold up. A lot of them have very old wiring in them. It would mean that they would have to be rewired before the insulation is put down. Some of them have asbestos roofs. The installers will not touch them. A few people have told me that they have rung for quotes and when the installers arrive, they would not work on the house because of the poor condition of the roof and the risk to themselves of either causing damage to the roof by removing it or just the dangerous location, basically.

Ms Parmenter: I will make some comments, if that is okay. The first point you raised was about price and using that as an instrument to achieve energy efficiency versus perhaps education. As you noted, price is a very blunt instrument for achieving the effect of people saving energy. I would also add that I do not believe that it is a very effective means of changing people's habits. There is just such a huge amount of research and, most recently, there was a piece of research—and I think it was by the Australia Institute, but I might have that wrong—that has looked again at the issue and concluded that, basically, energy pricing does not create reduced demand. They talk about it being inelastic to price. Some research that I know of from Victoria estimated that you needed to effect about a 40 per cent increase in pricing to get just a four per cent reduction in use.

This may seem slightly contradictory, because I have talked about how absolutely difficult it is for people on low incomes to cope with rising energy prices and you would think that that would encourage some savings, but I think that certainly at the lower end people are much more sensitive to price, because it is a higher proportion of their income. Research shows that in the lowest income quintile it is about 6.8 per cent of a household's weekly income. That research was done by the Brotherhood of St Laurence and KPMG and it is very recent.

So people are sensitive to it, but the issue is that they do not actually have very much discretionary electricity usage. They are already being quite careful because the bills are already quite an impost. That means that there is really very little they can do other than replace appliances and create more efficient dwellings. Then we move into the realm of those other barriers about the split incentive issue and the up-front costs. So price is not helping change the behaviour of people at the low end because of very strong barriers and it appears to be not helpful in changing the habits of people at the higher end, probably more so because it is a small proportion of their income. In the highest income quintiles it does not get above three per cent, for example, of weekly income. So I would say that price is fairly ineffective in that regard.

There are different views—and there is probably more validity—in saying that price can be effective if you are able to, for example, see what the price of electricity is on particular appliances. So you are getting real-time information and feedback. If there is a capacity to change your consumption habits or, for example, if we had something, which we do not have at the moment, like showing the cost at peak times people might be able to switch the time of use. That is not relevant right now, because we have only one flat rate regardless of the time, although retailers pay a rate that is time dependent. So those things are going to come up in future, I think.

But again, we need to be really clear, because there will be proposals around using things such as smart metering, where you can get charged for your electricity at half-hour intervals. So you can be charged for the real cost at particular times. We have to be really careful, again, with low-income households that they are not left behind in this move. They are not left paying cost of this new technology without reaping any of the benefits because they simply cannot. I have forgotten the other question, but I will leave it at that.

Mr DOWLING: The core of the question—and again, this is to all of you—related to any programs that are currently run by state or federal governments and ways they could be improved upon. Are there any obvious ones that are not working?

Miss Kunz: I might just comment on the ClimateSmart service, because a number of the members of QYEC had the service and I did as well. I found that it was certainly interesting to learn about energy use in the household. Unfortunately, I am in an old unit so we were not able to get the meter, which was disappointing, because I think that is a fantastic way to see the real-time energy use, like Linda said, which would be very helpful. But I think there is a lot that could be done to build on that program. We have written a few suggestions in the submission, like encouraging friends and family who might want to get the service. They may not have enough time or there might be little barriers that prevent them from making the call in the first place. I also think that, for renters who may not see the benefit of having the service, they could make the service free—simple things like that.

Further to that, I had the service, but nothing has happened since. I think there is some stuff on the internet that you can follow up, but it could be built on so much more. It could incorporate water as well and be extended to a number of other areas. I think that ClimateSmart service really offers the opportunity to build a longer-term program around energy efficiency and perhaps also to encourage reporting on how different people have changed their energy consumption since having the service so it was possible to see

particular families have saved 20 per cent on their energy bill because they had the ClimateSmart service. Reporting that information back to households is really important, because it closes a loop. Certainly, a lot of research always shows that it is really important not to just have those kinds of services but also to report back to people and help them to see what difference it has made. Otherwise, you really do not know whether you have made progress.

When I said extending it to other issues, I know that they did have water as part of the service as well. But I think that there can be more done to follow on from it. I think it is a great service, but it could be made better.

CHAIR: I think we have all been surprised at how rapidly it has been taken up. The success rate has been quite incredible. I only wish that it was our committee that had recommended it to government, because I think it is certainly one thing that it has got right.

Mr SEENEY: I would like to continue with a question about this relationship between the tenant and the landlord. Obviously, the discussion this morning has put the focus on the difficulties that that presents. I wonder whether any of you had any comment about that relationship as it applies to the public housing sector. Obviously, the government has a much more direct influence, because it is the landlord in that case. Would any of you like to address the issue of what the government could do with the houses that they own and that relationship between them and their tenants—the people who rent public housing—in relation to encouraging the uptake and the achievement of greater energy efficiency?

Mrs Ralph: At the moment, the insulation program—and I am calling it that—is running. They are using that federal money to update the homes.

Mr SEENEY: Do the tenants have an influence on that or does it just happen? Do the tenants have to request it?

Mrs Ralph: At some stage, at regional group level, we talked about money coming and what sort of things did we think that we could use, or would be most beneficial. Some of them already had the insulation and others were saying, 'We could have our roof insulated,' and, when it actually came to the point, the decisions were made up top and area offices were told what was going to happen in their regions. Roof insulation seems to be happening everywhere.

The hot-water systems are the biggest thing—if they would act on them. Do not just replace them as they wear out, until there is a deadline, with a new electric hot-water system. To be to be fair to them, I can only praise the state government, under the various names that it has had, providing housing. As I can only praise them as landlord. I have never had a difficulty. If I have needed something, it has happened, particularly this last lot of improvements to our townhouses because we did not even expect it. But at a cross-regional meeting earlier this year people from property portfolio management were there talking and they went through the alternatives. The heat pump was one and there was gas and solar. I know it is not simple for them to just say, 'All right, we are going to do this, this, this.' Although the heat pump for detached houses would be excellent, for blocks of units, they would not be because they can be very noisy. In my case, being in an attached house, we each have a storeroom where the hot-water system is sitting at the moment. In talking to the people here the last time you had the public hearing they assured me, 'Yes, there would be no problem,' because it was in an enclosed space. They are electric, but they take about 25 per cent of energy that the current ones do.

That is what I would like to see. That is what we would all like to see. People who have just the little tanks in the seniors units and the old bed-sits, they have the little tank—80 litres, or something. They are paying the higher rate because it is not sufficiently big enough to go on to tariff 33. They would like to see something done.

We have faith that the government will get to it. We know that they cannot do the whole lot in one go. It is like anything they do: they have to start and work throughout the state, but if they would just not replace any electric hot-water systems from now. I was talking to a lady who lives in a unit block down the road from me. Three weeks ago hers went. She got a new electric hot-water system, she said. She is stuck with it now for what? Ten years again. So, yes, there has to be something that they can get.

Ms Parmenter: Yes, I would like to add to Bernice's comments. Public housing is obviously an area where the government has a great opportunity to act. The issues that Bernice outlined with the hot-water systems are pretty significant for a group of low-income people to have the least efficient system on the market. Either because of the size of the system or because of the way that they are wired into the property, a lot of those tenants are not able to access the off-peak rate that other people would use when they have electric storage hot-water systems.

I think it is really quite unacceptable to have people forced to live with those systems when they are so electricity intensive. As I say, I do think government has an opportunity to act in a fairly direct and quick manner on this. An example would be the Queensland solar hot water rebate, the program where the government has bought the hot-water systems in bulk and is providing them at a reduced price. That is an excellent program and it is fantastic that they decided to have a component of that program targeting low-income people. When it was first implemented I spoke with the Office of Clean Energy about that program and about targeting low-income people. My first thought was, 'Because you are buying them in bulk, why not roll them out in public housing?' That seems so obvious. Of course, it was because the state government is capitalising on the federal government's solar hot water rebate and that is not applicable to state owned housing.

My view is that that program—and this perhaps goes to the previous member's question—therefore is missing an opportunity to target low-income people. Although it has said it has a low-income component, in reality there are very few people because you are only really looking at homeowners, because low-income people generally will be renters. I think, even with the low costs of that program, that is probably still too much of a financial barrier when you are going to have to walk away from the house and leave the system there. The risk is that there will be very low take-up in that program from low-income people, even though it has that component. So as an improvement to that program, for example, I would like to see that there was an allocation—a target—assigned to how many low-income households should be taking up the offer or a certain amount of the budget assigned to it. Otherwise I think the program may well be very successful but it is people who are homeowners and relatively better off that are able to access it.

It would seem to me that it would be better if there was more coordination between the government agencies involved in this because that program is being rolled out from another department. The previous department of housing—now under Communities, I believe—has its own separate program of improving public housing. It would be better if there was more cooperation between those. I could see a situation where, yes, it would cost more per unit because you cannot access the federal subsidy for those houses but you could get a much better outcome. You might have to pay more, but you are actually meeting that low-income target if there were one. I will leave it at that.

Mrs ATTWOOD: We are now looking at low-income earners rather than renters. Over the past few months that this committee has been going we have actually learned a lot about what government is doing to tackle climate change. We are very surprised ourselves at some of the incentives and the initiatives of the state government in relation to that. Looking at low-income families again, somebody mentioned the white certificate scheme—I am sure some of you are aware of it—that works in South Australia, New South Wales and Victoria. They have only just started so we do not know whether it is working yet, but do you think that could be applicable in Queensland as well for low-income families? Do you think it has some potential to work to alleviate some of the difficulties that low-income families have in relation to the cost of electricity et cetera?

Ms Parmenter: We did raise the issue of white certificate schemes in our paper and I guess generally with a supportive view, but also clearly noting that you have to prioritise particular forms of abatement, not just low-cost abatement. You have to, in designing the schemes, ensure that energy retailers are not just being incentivised to provide the least-cost option to generate certificates. For example, what I have heard from some of my colleagues who work in consumer advocacy in Victoria is that the program is delivering a lot of light bulbs, and of course there are a lot of other programs also delivering light bulbs. So replacing light bulbs seems a very easy option, but is it effective if we are duplicating that type of thing?

The South Australian program looks very interesting because it has actually put a target on the number of low-income households that have to be audited as part of the program. Having those sorts of targets we think is useful. Otherwise what will happen under those white certificate trading schemes is that customers that are easier to service will be the ones that get the assistance from retailers.

The other thing we would like to see if a certificate scheme were introduced is a prioritisation of essential use items—hot-water systems, appliances, things that are really important for people's everyday living—and not discretionary components. There was also a lot of talk when those schemes were introduced about whether it would not be better if there was a single national scheme. I know that the energy retailers, through their association, raised the fact that they would prefer to see a national scheme. So I think it is probably worth some discussions with the Commonwealth about their intentions there and how far off that might be. I know that New South Wales chose to proceed and has said that it would phase out its scheme if there is a national scheme in the future.

My two points would be that they can be effective but the design of the scheme is absolutely crucial and it is probably worth thinking about whether another state based scheme or a national scheme is the more effective way to go.

Mrs ATTWOOD: It might pay to see how the other states go in implementing the scheme and see what the results are and see what works.

Ms Parmenter: That is right. It is difficult to tell, because the longest they have been running is January this year.

CHAIR: Did they give any indication about how long they are going to run this program before they get back some responses or not?

Ms Parmenter: I am not aware of any evaluation plans.

CHAIR: Is there any further comment?

Ms Hawthorne: In any program that involves replacement or certificate points for replacing or upgrading an appliance there has to be somewhere in there a requirement that the appliance being replaced is destroyed or upgraded—by a program like Phoenix in Victoria—because I am seeing a lot of people who have appliances that they have bought not through a retailer but second-hand out of the *Trading Post*, including hot-water systems. So that is escaping the requirement to replace electric storage units with gas or solar. There is a second-hand market out there for these appliances and there are some fairly unscrupulous landlords replacing leaking hot-water systems with not very efficient second-hand hot-

water systems. It means that all the date stamps and everything on it are not correct, so anyone coming to repair it has no idea how long that appliance has been there. There are a lot of ways that people can get around schemes and certificate systems.

Mrs ATTWOOD: That is a very good point.

CHAIR: Any further comment? Mark, do you have any follow-up questions?

Mr RYAN: I have one final question. I just wanted to say first-up: Nadja, this booklet is outstanding. I had a quick flick through it and it will really inform our decision making, so thank you for bringing that along. My last question relates to the other side of energy efficiency. We have heard a lot about the cost savings that can be promoted through energy efficiency, but there is also the environmental saving as well. My general question to the panel is: is selling energy efficiency just about the cost benefits or is there merit in selling the environmental benefits as well?

In particular with Nadja having a bit of a view on young people, the generational factors I guess from environmental change impact on young people because of their relative youthfulness more than others. I think about young people today being big consumers of energy, whether it is long showers and using heaps of hot water or playing music and computer games at all hours of the night and that type of thing, but young people are also big beneficiaries from energy efficiency mechanisms because we save the environment and we save money.

I would just like your views on whether or not there is merit in selling the environmental spin-off of energy efficiency or whether it is just a cost argument and that is how we educate people about taking up those measures.

Miss Kunz: I might just make a comment. I think, yes, absolutely it is important to talk more broadly about the environmental benefit, but the other thing that has to be kept in mind that the kind of campaign that targets the replacement of a lot of products that are inefficient generates a lot of waste, and that is an environmental cost. So there are costs and benefits of energy efficiency in that sense. I think you need to be careful that that is recognised as well. I am not quite sure how you get around that problem of waste because I am not sure whether the line is with whether it is better to replace something that works with something that is more energy efficient. It is kind of a life-cycle question which is quite difficult to evaluate.

I certainly think, from the survey that we did, more young people are becoming more concerned about environmental issues and want to see action on that. Although we are big consumers—our generation has been I suppose brought up that way or for whatever reasons we are big consumers, unfortunately—I think regardless of that generally people still do want to see positive environmental outcomes.

CHAIR: Any further comment? Any further comment from the committee? Thank you very, very much. It was extremely informative. This is our first foray into this field so we are all relatively new as well, but can I assure you that we as a committee, since we were formed in April, have learned so much about energy efficiency on the part of the government. I have learned a lot that government is doing that I myself did not know it was doing. It is very difficult as members of parliament to try to concentrate on one area because we have just so many. We really do appreciate the time that you have spent with us this morning. Sorry, Peter, did you have a final question?

Mr DOWLING: I had two. I am a new kid at this. Forgive me.

CHAIR: We are all relatively new so forgive me.

Mr DOWLING: There are probably two things. How do you see the federal government's introduction of a Carbon Pollution Reduction Scheme, if it does go ahead, impacting on consumers or on renters and that area of our community? Further to that, a number of submissions made the comment that there are so many different programs out there that they are getting fatigued: 'Which way do I jump? Where do I start? What can I take? Does it negate me from taking another option?' There are quite literally programs coming at people from everywhere. Would a one-stop shop be an asset? People could go to one central point and say, 'What programs are going to best suit my needs? What is out there in the marketplace?' Is there any value in that? So there are two questions: would a one-stop shop help people through the maze of offers that are there; and what impacts do you see the Carbon Pollution Reduction Scheme having?

Ms Parmenter: I will answer that as briefly as I can. I think a one-stop shop is a great idea. I think you are right about that. There is a plethora of programs and it is very confusing. One of the barriers that has been acknowledged—it is not one we particularly highlighted in our submission, but it was acknowledged by the Productivity Commission in its 2004 study and by other organisations as well—is that the search time involved in making energy efficient choices is actually a really major barrier as well. I guess time is money, and the effort of trying to sort through the mess of things can be pretty discouraging.

I think that would be a good idea. I think there is probably some scope for discussions between the state and the Commonwealth about it. I think this has been difficult for state governments because of the uncertainty around the Carbon Pollution Reduction Scheme and how it will look. It is not just how it will look, even knowing pretty much the shape of it; its impacts are very difficult to predict until it is actually rolled out. There needs to be more discussion between the state and the Commonwealth about what should be done at a state level to act in a complementary way to that program.

In terms of the impacts, it is clear that there will be a reasonably significant cost impact, which is disproportionately higher for low-income households. That is of concern to QCOSS. There is a compensation package which looks like it will address that to some degree, but the Carbon Pollution Reduction Scheme will not remove some of those barriers to being more energy efficient. So there is definitely still more to be done beyond the compensation scheme.

The increased cost will not be just electricity; it will flow to food and other essentials because of an increased cost of production and transport. When we consider that low-income people will bear the disproportionate burden of this, we should also remember that they have the lowest carbon footprint and the lowest energy usage. Again, I just use that as a sort of justification for a much greater focusing on those households in our responses.

Ms Hawthorne: Can I just add that the idea of a one-stop shop is great because things change so quickly. If there is one really informed source that everyone knew was reliable and up to date, that would save a lot of misinformation and confusion for consumers. By the time they hear about one scheme, it is over or it has been shifted from state to federal. So having that one place that people could go to would be great.

CHAIR: That was a common thread through some of the submissions about the one-stop shop. We have four government departments that do certain things as well in energy efficiency. To get to know what all of them are doing can be quite difficult. Thank you once again. We very much appreciate your time.

Ms Ralph: Thank you for the opportunity.

Proceedings suspended from 10.18 am to 10.38 am

HICKSON, Ken David, Director, ABC Carbon

HUDSON, Robert Graham, Managing Director, Energy Resources Corporation

ROBERTS, Michael Edwin, Assistant Director, Environment and Planning, Housing Industry Association

CHAIR: Good morning. We had a panel of ladies before and now we have a panel of gentlemen. What a fine bunch. Before we start the proceedings, I thank particularly Robert Hudson and Ken Hickson who have come in this morning as part of the audience. They were very interested in hearing the proceedings this morning and have kindly offered, although I think they were coaxed a little bit, to come into this panel session because, unfortunately, we have had a number of very late cancellations for a number of reasons. I welcome to the panel Michael Roberts, who is the only original member, from the Housing Industry Association. Thank you very much for attending on behalf of your group. We also have Robert Hudson, who is representing a company called Energy Resources Corporation, and Ken Hickson, who is representing a company called ABC Carbon. Both gentlemen have had a fairly long history in energy efficiency, so we are very grateful that you are able to attend and make a contribution today.

Before we start could you state your names, positions and organisations to help Hansard and we will start with some opening statements. We would like to give you each five minutes. Michael, would you like to start because you have probably had longer to prepare? Shall I introduce the committee again or do you know the committee?

Mr Roberts: The names are all there. I am happy with that. I am Michael Roberts. I am the Assistant Director of Environment and Planning with the Housing Industry Association in Queensland. My introduction will be fairly brief. There were three key points to the submission that we made. They were that it is important that government identify and develop a consistent view as to what the end goal is as far as energy efficiency or sustainable housing is concerned. We deal with all levels of government and with different departments within government. There are myriad views and positions as to what the stance is. It makes it difficult from the industry's point of view to deal with that. I think it confuses everybody's mind as to what is the main game.

From the industry's point of view, we would like the government to develop a road map that identifies where we are heading, what the main goal is and how long they would like to take to get there. That would allow the industry to develop a response. Energy efficiency has a significant impact on our manufacturing sector as far as our builder members are concerned. With the pace of change over the past few years it has been very difficult for the manufacturing sector in particular to keep up and to make any plans for the future.

Thirdly, I would like to put on the table that continuing to regulate improvements in the building envelope, particularly within South-East Queensland, has, in our view, already reached the point of diminishing returns. Going beyond where we are now is really adding costs to the home and delivering very small benefit.

CHAIR: Thanks very much, Michael. Ken?

Mr Hickson: Thank you for allowing me to be part of this process. I did make a submission but much of my submission was probably not a formal one but more a presentation of my thoughts. It is based on something that I also submitted a few months ago to the federal government through a committee that I was asked to put a paper to.

I should say just briefly who I am and what I am. I am a private individual primarily, but I am quite an active communicator in terms of climate change, energy efficiency, renewable energy and that whole area of improving not only our lives but also the future of the planet. I have just put out a book called *The ABC of Carbon* which is subtitled 'Issues and Opportunities in the Global Change Environment'. So it is not just a doom and gloom scenario but one that paints a picture of what countries and companies are doing and what individuals can do to address the issue and capitalise on the opportunities.

I also run a small consulting business, which is ABC Carbon, and I put out a weekly e-newsletter called ABC Carbon Express. I should say right away that I am nothing to do with the ABC, the Australian Broadcasting Corporation. I am an individual and I run a business. I also have had a long commitment to conservation and the environment. I am a governor of WWF Australia, the World Wild Fund for Nature, and I have been involved with that organisation for many years. I do not represent them here today but I represent them in spirit because I believe what they are campaigning for globally as well as nationally and locally is not only a better environment but a commitment to act on and create a greater awareness of climate change as a major situation that we all have to face up to.

To me energy efficiency—and I think I made this clear in the paper I represented—is perhaps the easiest and the cheapest way to make a real difference in terms of reducing our emissions. There have been various estimates but one I know from the property industry is that buildings alone throughout Australia account for about 18 per cent of our emissions of greenhouse gases. If we could fix that, that would be a major saving in terms of reducing emissions. There have been other estimates where energy efficiency measures—again, right across-the-board; we are not just talking about buildings but about

energy in terms of transport et cetera—could mean a saving of between 25 per cent and 30 per cent. There was a quote from the United States that the United States can cost-effectively reduce energy consumption by 25 per cent to 30 per cent or more. By reducing energy consumption, you are at the same time reducing emissions, particularly as in Australia 80 per cent of our energy comes from coal-fired powers stations. There is a natural correlation between reducing our energy and reducing our emissions of greenhouse gases. Maybe I had better leave it there. Once you start me you have to know when to turn me off.

CHAIR: How many pages are in your book?

Mr Hickson: There are 188,000 words and 580 pages. Energy efficiency is part of it but it is not the whole thing obviously.

CHAIR: Does the Parliamentary Library have a copy of your book?

Mr Hickson: Do they pay for it or do I have to donate one?

CHAIR: I think they would pay for it.

Mr Hickson: Well they should do.

CHAIR: We might organise that for you so that 89 members of parliament can have access to your literature.

Mr Hickson: Maybe 89 members of parliament should buy a copy each.

CHAIR: Robert, would you like to give a brief opening statement?

Mr Hudson: Thanks for inviting me on the panel. I represent the Energy Resources Corporation, but I wear another hat. I have a company called SunEco Hot Water. So I wear two hats. We administer the energy in about 100 buildings which are commercial-residential high-rise type buildings. Michael is not going to like what I say, but the developers just do not care about energy efficiency. They only do what they are told to do. So I believe more regulation is required to make them design proper home units with proper lighting. You get a $1 million or $2 million apartment and it has air conditioning with one control for the whole apartment. So poor mum and dad sit there and all the bedrooms are being air-conditioned all day and then they go to bed and the family room is being air-conditioned. Natural ventilation is not being very well thought through. So there are a lot of issues tied up in the design of new buildings which need to be addressed. The only way that is going to happen is by regulation through government. I am not a regulator type person but you have to provide regulation.

I have not heard much about commercial users today. A typical commercial customer uses 20 times more power than a residential customer. That is where the big dollars are available as low-hanging fruit. It is something that should be attacked fairly hard in the commercial sector. I believe that the ClimateSmart service may be extended to commercial customers. If that happens that will be fantastic because we probably have 1,000 commercial customers who would love to have it. The quicker that happens the better because I think they will get some benefit out of it.

Another area is home units, which have not been addressed. They really do not get into energy efficiency. We are encouraging them to use the government's ClimateSmart service. A few of them have taken it up and it is starting to have some impact. Someone mentioned this morning that you have to keep at it. You cannot just give them the little box because it gets thrown in the draw and never used again. Most people I know who have had the ClimateSmart service done are not using it. Someone mentioned today that you have to follow it up, and I think that is very good feedback to the committee.

One of the most important points to have come out of this morning is that the people who use electricity do not pay for it. If I went through the panel here and asked who pays the electricity bill at home—

CHAIR: I do.

Mr Hudson: Do you have family at home who are using power right now? They are probably running the air-conditioning and have the plasma TV on all day whether they need it or not.

CHAIR: I will not admit it, but I left the television on for the dog.

Mr Hudson: It is a cultural issue that you need to address. I do not have the answers. But people who are using power are not paying for it, so they do not care. That is probably the most critical point.

CHAIR: They do not see it, I guess.

Mr Hudson: In terms of energy efficiency, old houses have dichroic lights—you know those little tiny lights. Everyone thought they were cheap but they are very expensive to run, they do not last long and they heat up the room. But there is no program to replace those. When you go into home units you might have 20 of these things and they use 63 watts. You are running a radiator in that room all the time. That is another area that needs to be addressed by the government. Incandescent bulbs are nice, but that is only a small part of it. Most old homes have all these dichroic lights and they have to go. They are being banned in all new homes and home units, but what about the 100,000 homes and home units already out there?

CHAIR: I did read recently that if we phased out incandescent light bulbs by 2011, I think it was, we would save building 80 nuclear power plants in the world. So obviously it is a big problem.

Mr Hudson: I was in a resort yesterday on the Gold Coast and 118 apartments all had dichroic lights and incandescent lights but a lot of them were on dimmers. So the government program did not take into account people with dimmers with the new lights they provided. Dimming lights are probably three times the cost but if the government encouraged them and imported them somehow then the costs would come down. But dimming lights is a very critical problem in home units and homes. So that is a very important area.

I think time-of-use tariffs are very important. But hit the commercial sector first rather than residential sector, because most people in the residential sector do not care about saving power. I have 6,000 to 7,000 customers who report to my staff and I get all the nasty phone calls. They just do not care. They do not do much about it. They whinge about it but they will not do anything about it.

The other important point raised this morning was about tenants, renters. That is a serious problem. I think a lot more work needs to be done on how to overcome that problem. That was very a interesting point that came up this morning. I had not appreciated before how bad the situation was.

CHAIR: But you can understand both sides of the argument. That is what we are hear to listen to—every side so that we can hopefully come up with some recommendations that government will take seriously.

Mr Hudson: I went down to Canberra 15 years ago when I was a senior manager with Ergon Energy and looked at their star rating of homes. I came back thinking what a fantastic idea. But 13 years later it still has not happened here or it is just about to happen. So the other good thing that came of this morning was the star rating of rental houses and when you change rental houses you have to put in an earth leakage circuit breaker and a smoke detector. I know it costs but if you are fair dinkum about reducing energy you have to force the landlords to do something. That was a very good thing that came out this morning. I had not thought about it before. The demand side management has to come into play. The cost of a new air conditioner in a home costs Energex—

CHAIR: $3,000.

Mr Hudson: They say $8,000 to $10,000. They are the official figures for the industry.

CHAIR: We were told $3,000.

Mr Hudson: They are the figures coming out of the Institution of Engineers—$8,000 to $10,000 for the community to supply an air conditioner—

CHAIR: Correct.

Mr Hudson:—which is going to be used three or four hours a day for two months a year. The return on investment for the poor power industry guys is just not there, and it is going to cause the cost of power to go up.

Power factor correction is the other big issue. It still has not happened. It has been talked about for 10 years. But somebody is stopping it in Queensland. I do not know who.

CHAIR: What are we stopping?

Mr Hudson: Power factor correction.

CHAIR: Can you explain that?

Mr Hudson: It is where 20 per cent of the energy going into an air-conditioning system or a motor is lost. You can stop the loss of that energy by putting in power factor correction. So you could save 10 per cent of the energy used in Queensland just by forcing people to put in power factor correction. They have done it in all the other states. There is something happening but in Queensland it is just not happening. I do not know why. But it is very, very important.

Mrs ATTWOOD: Robert, is that expensive?

Mr Hudson: No. It is cost-effective if you make it that way. Power factor correction is saving millions of dollars in New South Wales by reducing the demand. It hits the commercial industrial sector. They have been talking about kVA tariffs. It was introduced in Cairns, but when Ergon took it over it was cut out. So that is a very important issue that is not coming out.

CHAIR: Thank you very much, Robert. You have just brought up something that I have never heard of. We will certainly be having a look at that. Are you happy now if we ask you some questions? Who would like to start?

Mr SEENEY: I want to ask Michael for a Housing Industry Association point of view. The building codes are obviously something the government has a direct impact on or a direct influence on. Can you elaborate on some of the references you made in your submission about the costs that building code requirements are already placing on new housing and the cost benefit relationship there? I took from reading your submission that you were concerned that the benefits are not as obvious as they should be or that the payback period for the extra costs is longer. Can you give us some specific examples of what you think is good in the building code and what you think is not so good or downright bad in the building code and what do you think we may consider as recommendations for changes to the building code that may improve the situation in relation to the housing industry?

Mr Roberts: Typically the building legislation targets the building envelope—so the walls, the roof and the flooring system of a house. The energy efficiency provisions set out under the Building Code of Australia have established a star rating system, which is fairly consistent across the country at the moment. We are all pretty close to five stars. I think Tasmania is still at four. The Northern Territory is still at four. We are all fairly much at five stars.

There are two methods for a builder to certify that he has met the legislation. There is what is called the deemed-to-satisfy method, which is simplistically a checklist that is set out in the building code, and there is what is called the verification method, which is running your house design through a computer software tool. There are three commonly used software tools endorsed by the federal government in Australia.

There are pros and cons with both systems. The deemed-to-satisfy method is very popular amongst our industry. We did a recent survey, and over 50 per cent of our members choose to use the deemed-to-satisfy method primarily because it is simple. There is a checklist. It is easy to work through. And I guess they maintain control over their own job. They do not have to farm out the assessment to a third party with the associated costs.

The verification tools provide, I would suggest, more flexibility for the builder because you are allowed to trade off better performing parts of the house against not so well performing parts of the house. But there are also pros and cons with that because it does have a bias in the way that it measures the energy efficiency. The bias comes, I believe, from the fact that the software was developed in Canberra and therefore was developed in a cooler climate.

My issue with continuing down the path of regulating the building envelope is that in our climate in South-East Queensland at five stars, and moving to six some time next year, we have reached the point of diminishing returns. I have provided you with a graph in the submission that indicates that. That is a graph of the star-banding system that was set up and endorsed by the federal government. Just as an example, and not to get too technical, the star-rating system works on a calculation of megajoules per square metre that it is assumed will be used in maintaining a house at a consistent temperature. So simplistically they have identified a comfortable temperature and they then calculate how much energy it would take to keep the house at that temperature year round. In Brisbane at 3½ stars the benchmark was 83 megajoules per square metre. In Melbourne they are not required to achieve 83 megajoules per square metre unless the government regulates a seven-star rating on houses. In Canberra you would have to build an eight-star house, and in Darwin you would be building something beyond a 10-star house to meet a 3½ star house in Brisbane.

Now that is not terribly surprising given our climate here. We have a fairly benign climate. It only gets hot or cold really for a couple of weeks a year, so we are using additional energy to keep our home warmer or cooler for only a couple of weeks of the year, whereas in those other climate zones, particularly down south, you are trying to heat the house for the majority of the year. But it reinforces the fact that moving beyond six stars or five stars in South-East Queensland is a pointless exercise when you are only focusing on the building envelope.

We are in the middle of doing some modelling at the moment following the announcement by the federal government of introducing six stars. It is a difficult question to answer as far as what the cost will be, but at the moment our analysis is telling us it is something between $2½ thousand and $11,000 depending on whether it is South-East Queensland or North Queensland, depending on the orientation of the block of land and depending on the materials that you are using.

Over the last three years in Queensland through Building Codes Queensland and the Queensland state government we have seen a range of initiatives to address sustainability and water efficiency. They have all had a cost impact on housing affordability. I think, as I said in my submission, while individually you can argue the merits of them, collectively they have added to the cost of a home in the vicinity of $10,000 to $15,000. I guess in addition to that it is the pace of change. There have been substantial new requirements imposed on the housing industry since 2006. I am not saying that it has been a bad thing, but the industry just seems to take its breath and say, 'Righto, we've got our head around this,' and we get a new announcement.

Some of the initiatives I would agree are worthwhile because in Queensland the legislation has moved towards addressing operational energy use within the home. So, for example, with lighting, you cannot install halogen lights in a Queensland home anymore. Under the Building Code of Australia draft for next year, a similar lighting requirement will be imposed on the rest of the country. The federal government also has a minimum energy performance program. It will place limitations on the importation of those poorly-performing lights. So the people who have a unit or a house full of halogen lights are going to have a problem in the future when they need to replace them because you will not be able to buy them.

These things do have a cost impact. As I said, it is very difficult individually to argue that you should not do something. We were very upset as an industry when the state government mandated rainwater tanks. That was, in our belief, a fairly serious impost. We were given about a month's notice that it was coming in. At the time there was a water shortage and something needed to be done, but longer term you wonder whether collectively the money could not have been spent providing a broader benefit to the community rather than just targeting new homes.

CHAIR: Fair comment.

Mr SEENEY: In relation to the building codes again, it has been put to me—and I bring it up for discussion to test your reaction—that the building codes that we work with in Queensland are unduly influenced, as you probably indicated, by the requirements for Sydney, Melbourne, Canberra and southern areas of Australia. In your view, is there a case to be made for a major change to Queensland's building codes to take account of the tropical climate as we go further north? If you look at some of the new building developments around Townsville and Cairns, they could quite easily be transplanted from Sydney or Melbourne. How would you react to a suggestion that there needs to be a different building code in Queensland, particularly in North Queensland, to take account of our different climate?

Mr Roberts: There are a couple of elements to your question. Regarding building codes as the branch within the government, I think it is being a little harsh to suggest that they are being unduly influenced by southern legislation because I guess they are bound to work within federal legislation. Having said that, I think some of the initiatives that building codes have put in place here in Queensland, for example, recognition of outdoor living areas—and I am not sure whether you are familiar with that—

Mr SEENEY: No, I am not.

CHAIR: We would be keen to hear it.

Mr Roberts: It was introduced in March this year. There are some specifications as to what the outdoor living area has to be. It has to be of a certain size, it has to be covered, it has to be attached to a living area and there are incentives to include ceiling fans. This was to try to assist the industry to achieve five stars. What they have said is, if you include a useable outdoor living area that meets the state government's requirements, we will give you up to a one-star credit on your energy efficiency. What that meant for the industry was I could build a four-star home, I could provide a useable outdoor living area, and that would get me to five stars and therefore I would meet the legislation.

We were quite pleased to see that for a number of reasons. Firstly, it recognised that continuing to focus on the building envelope is not necessarily getting us to where we want to go. It also reflects how we live here in Queensland. We like to live outside. The thinking behind it was that if we provide a useable outdoor living area then people will not be sitting inside with the air conditioner on; they will be sitting outside under the ceiling fan. We would encourage the Queensland government to continue to explore those sorts of initiatives, because it is starting to address how people live.

To pick up your point about North Queensland in particular, one of the concerns that I have about continuing down the path of the way we currently measure energy efficiency is that the industry will respond by building houses that look like they have been transplanted out of Melbourne, and we will lose the Queensland vernacular in our building construction. The reason I say that is that the software tools which the industry is being pushed to use heavily favour a particular type of construction that is more common in southern Australia than it is in northern Australia. It will get more and more difficult to build lightweight houses—houses constructed of lightweight materials, timber and that sort of thing—and cost-effectively address energy efficiency the way we currently measure it.

Mr SEENEY: That begs a question: if you had the call, what would you change to prevent that outcome and to encourage the development of a Queensland style building code that provides an outcome of energy efficient housing that is uniquely Queensland in style? What would you do? What needs to be done?

Mr Roberts: We need to develop a rating system that addresses more than just the building envelope. I would be suggesting—and I have said this a couple of times, so at the risk of repeating myself—that we should stop now focusing on just the building envelope because we have reached the point of diminishing returns. We need to start recognising and controlling the way people live within their homes. We are now controlling hot-water systems, so that is a big tick. Hot-water systems as a single item are the biggest energy user in a home in Queensland. So we have addressed that, and that is a good thing. We have addressed lighting. Lighting is up there. There is a range of other household appliances that use a lot of electricity.

CHAIR: Well, we are addressing air conditioners.

Mr Roberts: I was just about to say, we demonise air conditioning. I understand why we have done that. Everybody turns their air conditioner on at the same time and it causes a whole host of problems. However, over the course of a year the standard household refrigerator uses more than twice the energy of an air conditioner, and how many houses have more than one fridge? Yet we have put in place legislation to control air conditioning. We have put in place legislation that controls the way we build houses so we do not have to use air conditioning, and yet there is a fridge in every house, and quite often two or three, that use more energy—2½ times more energy over the course of a year—than an air conditioner. What are we doing about that? Anecdotally, I am being told that plasma screen TVs use as much power as a refrigerator. We now have houses with one, two, three plasma TV screens in them.

As we move forward, we need to start taking those things into account. I think we also need to start recognising that in our houses we open the windows to allow ventilation in. The federal government spent a lot of money about two years ago trying to improve the models. Opening windows creates an issue for the software tools, because they like to measure a closed envelope. As I said, they have improved them a bit but in our view not enough.

CHAIR: Robert or Ken, do you want to make any comment?

Mr Hickson: Yes, I would like to jump in there to reinforce a couple of points. One, I think it is plainly—I was going to use the word 'stupid' but I had better not when I talk about government regulations. Queensland, as a tropical or semi-tropical state, should definitely have its own building code that relates to buildings. It is pointless to try to run a building code based on southern states that have a totally different climate.

A lot of work is being done by architects around the world, in Australia and Queensland as well, who are looking at designing and building homes that take into account the natural climate and utilise what is there in terms of ventilation, insulation and everything else. So there is a lot of very good work going on that would make it more practical for people's homes, which we are looking at here, but also all buildings to be built where they can be much more passive in terms of utilising the natural environment, whether it be the sun, the shade or whatever else.

A lot of work is being done—maybe some people would see them as being at the extreme end—by the Earth Building Association and the Green Roof Association. They are looking at alternative building styles for commercial as well as home buildings that take into account using different materials. In the case of green roofs, that is literally covering the roof with planting. That has major benefits in terms of insulation, ventilation, water saving and everything else. There is a lot of work going on. I think there is a lot more that could be of benefit.

In terms of air conditioning, we live in a block in Brisbane. We do not have air conditioning and we do not need air conditioning. The block is sufficiently ventilated that it does not require us to use air conditioning. I lived in Singapore for 17 years and for some of that time in a house designed by the British, who get very criticised for the way they build things in different parts of the world. It was a tropical colonial house that because of its position and because of the ceiling height was quite adequate for cooling and heating. No heating was required. There was natural heating. We managed without any air conditioning for sleeping, living, cooking and everything else. It is possible to design and build and live in homes without air conditioning being a requirement whether it is in a tropical climate or in a semitropical climate.

Mr Hudson: I support what Michael said. Basically what they have done is got the design of a house in Melbourne and stuck it in Brisbane. It has no eaves or natural shading. Shading is very important. I will ask you: who has a bar fridge at home full of beer?

CHAIR: I would say none of us have.

Mr Hudson: That is costing $100 or $200 a year. It is full of beer. We manage a number of unit blocks and we ask that question and they say that they have a bar fridge—it is the old fridge they have kept. It is very inefficient and full of beer. It costs a lot of money. There are a lot of issues like that. We can do a lot more in terms of saving energy rather than designing a house to Victorian standards which are not our standards.

CHAIR: We have an advertising campaign that actually targets that second old fridge. I do not have a second old fridge.

Mr RYAN: We have been very thorough. Michael, thank you very much for the extended answer before. I was going to ask about star ratings and the cost of going to the next level of star rating. The graph was very useful in explaining to me the longer payback time. In Queensland, because of the diminishing rate of return the payback time in an energy efficiency sense is much greater for every star level you increase.

I guess that then leads on to my thought about energy efficiency not necessarily just being about the cost but also being about the environmental spin-off. I wonder whether in your dealings, Michael, Robert and Ken, whether or not consumers themselves are coming to business and saying, 'We are prepared to pay more because of the environmental spin-off.' Are there any partnerships that business and industry can develop with consumers and the government to say, 'Although you cannot quantify the energy efficiency from a cost saving point of view there are direct environmental savings.'? I would be interested in your thoughts on that.

Mr Hickson: There are a lot of businesses that are very involved in doing audits for companies as well as for homes. They make it very clear when they do these audits that not only can you reduce your energy use by doing certain things and obviously reduce your emissions but you can also save money. It does work very effectively. I have seen businesses look at this very closely and achieve cost savings that are quite significant.

I included in my submission, and it is in my book as well, some research that was done at Monash University in Melbourne. There is work being done overseas on the same thing. They looked at the efficiency of power management for computers. They looked at 30,000 computers at Monash University and developed a plan for power management to turn those off at the times they were not needed. It was a compulsory switch off. Not only were they able to significantly reduce their energy use but there was a monetary saving of $1.7 million dollars a year. That is for one university with 30,000 computers.

If you look at that across-the-board—if every university did it, if every school did it, if every business did it—what savings would there be in energy, emissions and money? There are a lot of things that can be done without necessarily changing the structure of a building or changing the nature of the workplace but by having an energy restriction or energy management system in businesses, in schools, in universities and in the home. There is a lot that can be done.

The other point which is indirectly related to your question is having a better coordinated program where we have—and I discussed this in the break—the local government, the state government and the federal government all promoting schemes that do not seem to coordinate properly. I have talked to some of the people who are implementing these schemes. There seems to be a little bit of jealousy between them—you can do ours but we do not really know anything about the other ones. That is optional. It should be done jointly.

That is why the one-stop shop would work fine. It must take into account state schemes, federal schemes and local government schemes. There are a lot of organisations out there that are more than happy to promote these in communities. There are community organisations that want to get involved to help manage emissions, energy and people's money. I think there needs to be much greater coordination of those energy efficiency programs to achieve some results.

Mr DOWLING: As I have been listening to the debate my position has changed about four or five times between what you have had to say Michael and what you have had to say Robert. A comment you made in your opening statement Michael was having some clear direction—where the government wants the industry to be in the future; what the end game is, I think was your terminology. That would require regulation but at the same time you say you are overregulated now and the regulations do not fit Queensland. Jeff went to the heart of the issue about the building codes et cetera. Given a blank page and given what you have said and given what you have said Robert about commercial being the bigger user of power—does your industry represent the commercial sector as well?

Mr Roberts: Primarily residential.

Mr DOWLING: If you need clear direction how is that achieved without more regulation in the building industry?

Mr Roberts: In asking for a road map, if you like, it would allow the industry to start gearing up for what the ultimate goal is. At the moment the industry responds to legislation that typically is announced around election times. Not to put too finer point on it, but Queensland had moved to five-star ratings for 24 hours and there was an announcement that Queensland would be moving to six star ratings.

We were in the middle of a state-wide roadshow explaining to our members what they needed to do to their homes to get to five star and there had already been an announcement that within 12 months we would be going to six stars. We were standing up in front of our members saying you need to do X, Y and Z and explaining the outdoor areas. We were saying that if you change the insulation and do this then you can get to five star. But in the back of their minds they were sitting there thinking what is the point of this. Tell me what six star is. I cannot tell them what six star is.

It makes it very difficult for our manufacturers to put in place a work plan for where they are going to be in five years time. I do strongly believe that if you were able to clearly enunciate what the end goal was then the industry would move there. Yes I accept that there needs to be some regulation. The regulation needs to set the benchmark because there will always be people who just want to meet the bottom level. If you give the industry enough time and clearly state where they need to be then you will see some movement.

We have an environmental building program called GreenSmart which has been running for 10 years. So 10 years ago HIA, as a national organisation, made the decision that it needed to start educating its members about a better way to build homes. It is a very strong program. We keep having to change it to make sure that it stays ahead of the regulation. That is a challenge for us as well. What we are teaching today is far more advanced than what we were teaching 10 years ago.

To get back to your question, that would be the benefit of having, say, a 10-year time frame—that is, to say in 10 years this is where we would like to be. While we are a conservative industry we are also an industry that is able to be innovative and move forward.

Mr DOWLING: Robert, you raised the commercial arena. I am not sure of the answer to this question. Do the building codes and star ratings apply to commercial premises?

Mr Hudson: Yes, they do.

Mr DOWLING: Is it the same set of criteria as for residential buildings.

Mr Hudson: It is different. While having a star rating or a design criteria you can say you can put in energy efficient lights in—like the lights up there—but how you control them is more important. I go into home unit complexes and there are a hundred lights on one switch. It is the way they design it that is an issue. There is a very cheap solution to this and that is putting in an extra few switches. You can go into a home unit complex and the main room has 10 lights on one switch. They should have three or four switches so they only need to switch on the lights in the area they need. In this room the five lights on one side and the four lights on the other side do not need to be on today. What value are they adding? But they are on one switch when you walk in the door. They are the sorts of things you can do and save a lot of money without a lot of cost.

There is a lot of low-hanging fruit out there not addressed by the industry at all. It needs leadership to make them listen. I think that has to come from government. It needs to say, 'If we do not do this guys we are going to run out of water.' Everyone is using about 30 litres of water less a day.' I can prove it. You have to do the same thing here. You have to force people somehow or other and say, 'Your lights are going

to go off because we do not have enough power stations.' That is going to happen. Who is going to spend $2 billion or $3 billion on a new power station if the returns are not there. I do not think the government is. Private industry is not. There are some very serious issues out there.

Mr Hickson: I will reinforce that. I think the point you made about water restrictions is so important. If we could create the some sense of urgency about our energy use as we have with water, which works, it would be great. It is a combination of the carrot and stick and restrictions but we need to educate people and tell them what they should be doing.

The simple water egg timer device that we have in our showers is working. People are using them and taking notice of it. For the first time in their lives they are measuring how much water they use in a shower. We need effective meters in the home that measure how much energy we use. We need to set a standard—this is what an average home should be using in terms of its electricity or energy—and set those meters so people can effectively use them.

Related to that is very much a campaign on energy efficiency, not unlike the water use campaign, but it needs to be national and needs to take account of the differences in states and communities. That could work very effectively. Some of the points I made in my paper. I indicated 10 different areas where that can be addressed.

Mrs ATTWOOD: In relation to the road map for government and industry, I think we should actually set benchmarks together and consult with industry about what is actually possible for industry to achieve in a couple of years time. Going back to energy efficiency within the home and air-conditioners, fridges, plasmas et cetera I think there is a bit of a responsibility for industry to be promoting energy efficient products. Is there something that industry could be doing better in terms of research into energy efficient products, promoting the sales of those products, providing incentives for people to purchase energy efficient products? Does anybody have a view on that?

Mr Roberts: It is a very difficult thing. To go back to one of the previous questions about whether people are motivated to be building energy efficient homes to save the environment, through our GreenSmart program we do a lot of surveys. Inevitably, you will provide a list of items and say, 'In your next home, how many of these would you include?' People will tick every box and so you can come out and produce results of a survey that says that 80 per cent of new home buyers are interested in energy efficiency and sustainability. Our members regularly tell us that when it comes to signing the cheque those things are not as important as other items within the home that are perhaps a little more glitzy and a little more showy. I do not believe that the general population is at the point where, unless you can clearly demonstrate dollars in the pocket, they are willing to spend money to save the environment generally. That is an issue that the industry has as a whole. We are building bigger homes than we have ever built before. Why? New home buyers are not prepared the buy the small house without floor coverings and curtains that I know my parents did when they bought their first home. They want everything in the first home—the media room, the ensuite, the extra bathrooms. They want the whole lot now.

CHAIR: They want everything yesterday, too.

Mr Roberts: Yes. They want the big home. With the way the economy is going, we are starting to see that change a little bit. It is starting to bite. Unfortunately, the majority of people are motivated by dollars rather than an overwhelming desire to save the environment. Having said that, certainly at the higher end of the market where price is not necessarily the driving factor we are seeing some innovation occurring there.

Mrs ATTWOOD: Going back to what Ken was saying about a campaign to actually sell energy efficiency to consumers, where would you suggest we start in relation to that in terms of trying to change people's thinking like we did about water—that is, that it is crucial that we save as much as we possibly can? Is there some sort of campaign where we might be able to promote the saving of energy in the future?

Mr Hickson: Certainly, you are doing it here with your low-carbon diet and ClimateSmart. There are a lot of things happening, but it just does not seem to have that urgency and it does not seem to be effectively coordinated as to what people can do. Again, I think there is a lot of confusion out there. I have studied the subject and written about it probably as much as anyone, if not more so. But I can be confused, too, because the rules keep changing. Whether it is the solar grants from the federal government that change or whether it is the qualification for insulation or whether it is, 'What do I have to do about renewable energy targets?,' it gets very complex.

So I think there is a need for a bit like the one-stop shop but also a clearing house that puts all of this stuff together and makes it very clear and communicates to the man on the street, the woman on the street, the householder and the businessperson: 'These are the things you can do. This is what will happen. These are the results in terms of saving energy, saving emissions, saving money, and this is what is available in terms of incentives to enable you to do it.' There are incentives there for business to make their buildings more energy efficient from retro-fitting to grants through various sources. So there is a lot out there, but it has not been brought together and put in a simple, easy-to-understand way.

I have to criticise the three levels of government, because it does not seem to be coordinated properly. I had a case where someone who was doing audits for the new federal government's Green Loans Program—he happens to be a friend—came into my house and did the audit. I said, 'What about the

other schemes like what the Brisbane City Council is offering?' He said, 'They are different. They are sort of optional extras. You can do those if you like.' That to me says that this is crazy. They should be coordinated, where someone says, 'Here are the things that you can do together. There's this incentive. Here's a loan you can get for $5,000 which you can use for insulation or solar water heating or whatever or even buying more energy efficient appliances.' It just needs to be properly coordinated and managed. So there needs to be, if you like, an energy efficiency agency that goes through all of those levels of government and that is the one-stop shop where people can get the information as well as know what access they can have to loans or incentive schemes or whatever else.

Mrs ATTWOOD: But how do we actually get people to ask for that information in the first place? It is fine to try to coordinate it.

Mr Hickson: It needs to be properly coordinated as well and communicated effectively. We are seeing national campaigns for a lot of things; we could have a national and a regional and a local campaign for energy efficiency. But I just think we need to create that urgency that it is a problem that we need to deal with and there is money in it—money to be saved and money to be made—if a business is smart to manage that properly.

Mr Roberts: I think next year we are going to see the introduction of a sustainability checklist. The state government has introduced that requirement. It is going to be interesting to see whether that has any impact at all. I am not sure whether you are all aware of it, but from January next year there will be a requirement to fill out a sustainability checklist when you are selling your house and it covers the basic items of insulation, water saving, tapware, toilets and those sorts of things.

CHAIR: Does it have an energy rating on it? It doesn't, does it?

Mr Roberts: It has a box you can fill in if you know the rating of your house. Certainly from our industry's point of view, we think that is a far better model than the ACT version, because I think adopting the ACT version of having to go off and get your home rated really will just create a whole new industry of energy raters in Queensland, apart from adding some not insignificant costs to selling your house. I live in an old Queenslander, so if I were to sell my house I would have to go off and pay someone to draw up a set plans of my house before I took them to the energy assessor to get it assessed.

So I think the checklist is quite a practical approach to the sorts of important items that should be in a home. It is easy to fill out. The intention is that it will be filled out by the vendor. I suppose there will be people who will say, 'I haven't got any of this stuff in my house.' It is then a commercial decision about whether you buy the home, whether you negotiate on the price or whether you do not care. But I think that is an initiative that will assist in educating the community. Certainly, the real estate industry has a role to play in this. Not to be too unfair, I do not think they have a very good understanding at all of energy efficiency. They are not aware of it, they do not know how to market it and, therefore, they do not know how to sell it.

Mrs ATTWOOD: Maybe we should do something in relation to landlords as well in terms of getting them to fill out the checklist before they rent, or do it on a regular basis with their current clients.

Mr Roberts: I must admit, I am not sure whether it applies to rental properties or not.

Mr Hudson: I do not think it does, but it should.

CHAIR: I am sure renters would love that information.

Mr Roberts: Yes. Theoretically, it has the potential to then have an influence on how much you are prepared to pay when you rent a property.

CHAIR: Before I hand over to Mark, who is very eager to ask another question, can I just pick up on something you said before, Robert, about how you have one switch that controls maybe up to 100 lights. I am assuming that is done because it is a cheaper way of wiring a block of units. How much—and Michael might be able to answer this—extra cost is it to have, because you said you might need two or three or four extra switches? Is that a fairly expensive cost to the person who is building, or is it very minor?

Mr Hudson: It is such a cut-throat business. When subcontractors tender for work, they will always do it the cheapest possible and there is no real focus because the developers want the cheapest possible. But more importantly than switches, the thing is control. You can put in movement detectors, which means that when you open the door in the lift all of the lights come on and the lights stay on for, say, 30 seconds and they go off. Some of the smart buildings are doing that down on the Gold Coast and are saving a lot of money.

The big issue is not just energy efficiency; it is what is called whole-of-life costs. If you run these lights for 24 hours as compared with running them for, say, two hours, you can see not only the saving in energy but also the saving in the replacement costs, which are nearly as much as the energy costs by the time you get someone here with a ladder to get up and change that one light. So there are a lot more issues tied up with this from a commercial perspective that I do not think have been addressed very well by the energy efficiency industry. You have to look at the whole-of-life costs in this and therefore there are commercial incentives to do the right thing and replace and control lighting much more than with just switches.

CHAIR: Mark was talking about—and I am hoping he is going to mention it shortly—when you leave your home there is one big switch that turns off probably not everything—

Mr RYAN: It is called a green switch.

Mr Roberts: I was going to say that, while I do not disagree with what Robert is saying, we are actually trying to promote the green switch by the front door so that when you walk out the door you hit the switch and it turns off all unnecessary items within the home.

CHAIR: On that note, I will hand over to you, Mark.

Mr RYAN: Great. I will not talk about the green switch. I was hoping just to shift direction a little bit, and it leads into research and government assistance and investment in research being done by business and industry. I know that you raise it a little bit in your submission, Ken, particularly when you talk about carbon capture and storage. I was wondering whether you have any particular views about how much governments are assisting and investing in energy efficiency research and development and whether there are other things government can do to assist with research of that particular part of the energy debate.

Mr Hickson: There has been a lot of research obviously gone on in Australia as well as overseas, and in my book I capitalised on quite a bit of that and drew on information. For example, in the UK they have made it compulsory now that all homes will have a smart meter—25 million homes—and the government has committed to that right through the country. So there is a lot actually happening.

What I think would be even more important than investing in new research is collating and bringing together all of the existing research—that is, both research as well as applications of research in every part of the world, looking at what Denmark has done or what Germany has done in terms of energy efficiency and renewable energy in the home as well as in buildings. So there is a lot out there. There is a lot of very good, practical, applicable knowledge and research that has already been done. I think there needs to be an agency or a government department that brings all of that together and says, 'This is the way we can go ahead. We can see examples.' Probably Europe has some of the best examples of both energy efficiency and renewable energy programs in the world when a country like Denmark, which relied on North Sea oil and gas, has committed to 50 per cent of its energy coming from renewable sources—50 per cent by 2030. That is amazing. Australia is committing to 20 per cent by 2020 whereas Denmark has made a major commitment.

Already in Germany—and this is perhaps in another area, and someone mentioned earlier what happens to old appliances when you put in an energy efficient one—it is an obligation not only on car companies but manufacturers of every sort to agree to take back for recycling purposes all appliances and cars. They did it with cars about 30 years ago in Germany. It was a requirement of the manufacturer to take back the cars and re-use them. I remember doing some research when I did some work for BMW a few years ago and something like 90 per cent of a new BMW car—let us say a 3 series—is made from recycled materials—90 per cent! So they are making use of the materials and re-using the materials.

We have not gone anywhere near that in Australia. I know that the computer industry in Australia is working very hard to manage e-waste—computers that are no longer used. Some can be recycled and re-used and some are sent to other countries where they might be useful. But they are re-using that material, and that is where we can do a lot. It relates directly to energy efficiency if we know that the old appliances that we have or the old car we have can be recycled and re-used, because you will tend to buy a new one that is more energy efficient that is going to save you money as well as save fuel and reduce your emissions. So there is a correlation between managing and recycling and managing our waste and recycling our appliances. So you can relate it to an appliance and to a car. I do not know if that has really answered your question, but you can see the direction I am going in.

Mr RYAN: You gave us some direction.

Mr Roberts: I think there needs to be a lot more money spent on research. Just to give you a couple of examples, the Queensland government has a program called the Sustainable Homes program. It has been operating for a couple of years. It is a very successful program, bringing together government and industry to facilitate the construction of energy-efficient homes and to educate the general public about how it can be done and what can be done. Disappointingly, that funding has been withdrawn from that program and I am led to believe that it will wind up at the end of the year. That program was a great initiative, as I said, because it brought together government and industry. So there was a lot of sharing and learning that was going on

CHAIR: Were councils also involved in that?

Mr Roberts: There were a couple of councils that got involved, yes.

CHAIR: Do you see a role for councils with the program?

Mr Roberts: Absolutely. Part of the problem, as I see it in this area, is that we have a lot of well-meaning people who are responsible for producing legislation who do not necessarily know what the real facts are. I outlined a couple in my submission. We have a council in North Queensland that requires you to have a dark-coloured roof.

CHAIR: We visited the Solar City project on Magnetic Island and they advocate white roofs.

Mr Roberts: I also gave the example of a council south of Brisbane—I will not name the council—that requires verandas to be put on the front of a house. But if the house faces north, that is about the worst thing you can do. But it is a requirement of the planning scheme.

The Sustainable Homes program was a great initiative and it would be a shame to see that disappear, particularly as it was always envisaged that in the next stage of the program they would start targeting renovations. So they would facilitate projects open to the public that demonstrated quite clearly how you can renovate a home and incorporate a range of energy-efficiency requirements.

The CSIRO out of Newcastle is undertaking a study at the moment into carbon-neutral housing, but they had to go and seek private sector funding to get that initiative up and running. As I mentioned earlier, with the software programs that really govern the way we measure the energy efficiency of homes, no funding has been put into that to finetune the models, yet everybody acknowledges that the models need finetuning.

So it is a matter of deciding, as I keep saying, where we want to go, what is important and then moving in a combined direction rather than everybody running off in different directions—as I said, well-meaning people, but who do not necessarily have available the correct information.

CHAIR: We are out of time. Thank you very much for your time. It has been most enlightening and to be put on the spot particularly like Robert and Ken were this morning, you have done admirably. We appreciate your time. We understand that there are a lot of different views on this. We are not here to criticise any of those views; we are here to basically learn and to listen and, hopefully, come up with some good direction that governments may follow. You would understand from an industry point of view that we obviously need help in promoting any new initiative. Obviously, we cannot afford to fund every initiative that groups and individuals may come up with. So we are looking for support from individuals, community groups, business and the government. We hope that we can all work together to achieve some better outcomes that are good for Queensland. Thank very much for your time.

Proceedings suspended from 11.47 am to 12.21 pm

CASEY, Mr Peter, Assisting Council of Mayors—Principal Engineer, Brisbane City Council

GARDNER, Ms Sarah, Acting Manager—Strategic and Environmental Planning and Policy, Gold Coast City Council

McCOY, Mr Daniel, Energy Efficiency Officer, Moreton Bay Regional Council

McGAW, Ms Ngaire, Sustainable Jamboree

METCALFE, Ms Erica, Senior Project Officer (Environment and Sustainability), Council of Mayors (SEQ)

RAYMOND, Mr Evan, Coordinator—Sustainable Services, Moreton Bay Regional Council

CHAIR: Can I introduce myself. I am Carryn Sullivan, the member for Pumicestone and the chair of the Environment and Resources Committee. The committee has been operating now for some months and we are all quite new to energy efficiency and the role that we are playing in this committee. It is a bipartisan committee and, as you can see from the names at the front, we represent the government and non-government. We are working well together on the issue of energy efficiency. We have already had a couple of public forums and we are learning as we go. We are hoping to get enough information to put together a report in November and part of that report would be to make recommendations to the government, which we hope obviously they take seriously and take on board. Will the Council of Mayors like to start with their opening statement?

Ms Metcalfe: I am from the Council of Mayors. We represent nine of the 11 councils in South-East Queensland. Our submission was based on comments from those member councils. We have an interest in energy efficiency through our own Environment and Sustainability Committee and strategic objectives that the mayors have to promote initiatives around climate change and renewable energy. So our submission has focused on that and where government policy can help achieve what councils are trying to work towards as well.

We have been involved in the Home WaterWise Service and have also helped with the ClimateSmart Home Service promotion. We are obviously involved in commenting on a lot of policy and plans for the Queensland government. That is our background and then there is a lot of detail about programs that we would like to see happening in the future.

Ms Gardner: My name is Sarah Gardner from the Gold Coast City Council. The Gold Coast City Council is very much focused on energy efficiency through its own initiatives at the moment, so I was quite excited to have an opportunity to comment in the inquiry and make a submission. We have some initiatives that we are undertaking at the moment as part of the council and we are quite interested in opportunities to be involved with the three tiers of government within Australia looking at energy efficiency and how we might be effective as a council but also working with the state.

In particular, at the moment the Gold Coast City Council obviously supports ClimateSmart, but we are doing some of our own initiatives through our own climate change strategy, including looking at a feasibility study for the bulk purchase of energy-efficient appliances. We are also this weekend opening an interpretative centre at the Ecovillage, where we have a display that also includes considerations for energy efficiency, to promote energy efficiency within our community, and also, within the council itself, we have saved 10 per cent of the energy costs for both of our administration buildings in the last two financial years. So it is a topic that is dear to our hearts and we are very keen to be involved in this process. So we thank you for the opportunity.

CHAIR: Thank you. Is your council part of the Council of Mayors?

Ms Gardner: Yes, we are.

CHAIR: Evan and Dan, welcome. I will get you to state your name and give a brief overview from the Moreton Bay Regional Council.

Mr Raymond: Thank you for the opportunity to comment in this forum. One of the things that the Moreton Bay Regional Council is doing is looking at climate change as a major issue and, through that, looking at energy efficiency within our buildings and our vehicle fleet.

The Moreton Bay Regional Council have been working on quite a number of projects within the council. Obviously, we are still in amalgamation phase, even though it happened quite a while ago. All three councils were previously doing energy efficiency work and this is bringing those together in a corporate action plan so that we can work together to reduce our greenhouse emissions. That is one of our goals—to improve energy efficiency in the region both for the council and the community.

CHAIR: Can I introduce Ngaire McGaw from Sustainable Jamboree. Ngaire, we appreciate the fact that you are quite happy to be in this forum with local government. Would you like to make an opening address?

Ms McGaw: My name is Ngaire and I have been involved, as convenor, of a small voluntary group in the western suburbs around the Centenary area. Sustainable Jamboree has been going in the Jamboree ward for three years or so. We have had some government funding from both the Brisbane City Council and from the state government to run initiatives to engage the community to take advantage of what programs are out there in energy efficiency and to try to get some social change happening.

CHAIR: I would like to open up the hearing to questions.

Mr SEENEY: On the issue that Ngaire raised in regard to government funding that is available to councils, I suppose foremost but also to community groups, would any of you like to make a comment about the value of the government funding programs that are available to encourage energy efficiency and how you may have taken advantage of them or how they may be misdirected?

Ms Gardner: I could probably start for you. From the Gold Coast City Council's point of view, we certainly support the ClimateSmart Home Service. The council itself has been looking at possibilities where we can reinforce that within our community. We have met with the provider, LGIS, on a of number of occasions. Some of the comments we have around those sorts of things are that there is a bit of confusion in the community at the moment about where you source some of those initiatives from—state government and federal government initiatives. I also think that a number of the initiatives at present also require some structural change within dwellings or within the places that they might be applied to. One of the concerns we have is the rental market, for example. If you do not own the place that you occupy, where does that leave you in terms of your options for employing some of the energy-efficient type of solutions. There is a whole market of residential renters who are not necessarily being tapped at the moment by some of those schemes. So that is a concern for us.

I understand that the Climatesmart Home Service is actually available to renters, even if they take up some of the non-structural components of that, but I do not think that that is known widely. So that has been something where we feel there is a bit of a gap at the moment.

CHAIR: Would anyone else like to make a comment?

Mr CASEY: We have seen similar things around the confusion about who is actually supplying what service. The ClimateSmart Home Service is an excellent service. There are some poor individual delivery cases, of course, but in general it is an excellent thing in terms of raising the awareness in the community. But there is also a lot of confusion about where the money is coming from. I suspect a lot of these programs really need to be around giving an encouragement to move in the right direction rather than changing the whole economics around whether you put in CFL lights and those sorts things. Clearly, they are the right thing to do but it is more about the direction. So I think smaller amounts clearly targeted for activities might be a slightly better approach. We are certainly seeing that and then when you look at the amount of administration that is involved in a lot of these things, we are assisting the ClimateSmart home process by a $50 rebate for Brisbane residents, making it essentially free. But the cost of that administration and getting both state and local governments together has been difficult. So obviously, we could do more and do better if there were more streamlined processes and more clear messages, I think.

CHAIR: Any other comments?

Mr Raymond: Again, this is just reinforcing that point of people just not knowing which particular grants or funding are from the state government. As an example, one of the programs at the moment is the Queensland state government hot water scheme. A lot of people have applied but there has been such a long delay between people applying and people actually getting the solar hot-water systems. That delay has caused a bit of confusion. I was actually talking to someone yesterday who didn't know whether the scheme was still going. They hadn't had any feedback from the government. That is just a particular example where follow up would be good.

CHAIR: Any further comment?

Mr RYAN: Thank you, Chair, and thank you everyone for coming in today. My question is more about council operations and what you are doing in your respective communities. There are a few things that come to mind, of course, in relation to expenses on councils' side and their uses of electricity on things like water and sewerage as well as street lighting—I know in the Moreton Bay Regional Council there are some trials of solar street lighting that are going on in the Caboolture South area—but also what you are actually doing in your offices. There is a movement in state government departments to make sure computers and lights are turned off at night. I wonder whether or not you could share with the committee some of the things that you are doing within your councils from an operational point of view that are encouraging energy savings and energy efficiencies?

Mr McCoy: We are currently doing the NABERS ratings for our office buildings. Through the Department of Public Works all Queensland government buildings will be star rated in the future. We think that would be a great idea across-the-board—to star rate all buildings. Existing buildings seem to slide under the radar a bit and a lot of our problems lie in old buildings. So we are going to star rate them and prioritise our works based on those star ratings.

Ms Gardner: In terms of the Gold Coast, we have a whole climate change strategy that includes looking at council mitigation, and obviously energy efficiency is a big part of that. For example, as I said in my opening statement, we have saved 10 per cent of the energy from our two administration buildings at Bundall and Nerang. We have done that largely without budget just by making some adjustments, for

example, to our air conditioning which changes some switches from automatic to manual, but also we have undertaken a number of energy audits within a number of council facilities. We are converting all of our swimming pools at the moment to solar heating as opposed to electric heating. We are also undertaking an air-conditioning retrofit in our Bundall office. We had $400,000 set aside for an air-conditioning retrofit and also a lighting retrofit but we realised that the returns on the air-conditioning retrofit were actually better than the lighting retrofit so we have decided to complete that project and delay the lighting retrofit.

Our council does participate in Earth Hour and that helps us internally to raise awareness with our staff but also the climate change strategy has been developed right across all directorates within council, so there is definitely a raised awareness now within council around what we need to do.

We are a little bit different to some of the other South-East Queensland councils. We have made a decision to really focus on behavioural change at this point in time rather than to invest in green power. We do have an aim to become neutral by 2020 but we do not intend to invest in green power as an offset for us until quite some way down the track. We would really like to focus on behavioural change because, with 3,500 employees, if we can have that behavioural change at that level then obviously that is going to spill out into the community and into their homes as well.

Mr Casey: We have undertaken a building efficiency program over the last four years and we have run through a few cycles of that now. An assessment across the council indicated that there were probably five to maybe 15 per cent gains from energy efficiency, which is certainly a long way away from achieving carbon neutrality. So we have taken a couple of steps. One of the big issues is around changing our building stock. We have moved to four-and-a-half and five-star rated buildings as we have actually moved the location of offices and rationalised our spaces. So buying better is certainly one of the issues that allows us to be more efficient. We are doing NABERS ratings on our buildings. They are achieving five-star ratings at this stage with the addition of green power as part of the mix. Certainly we have good quality state-of-the-art lighting at the moment. Our air-conditioning systems in our larger buildings are all now part of the VMS control system so they can turn them off at appropriate times. Those things all start to make a difference. Because we are captured under the EEO legislation we are required to conduct assessments and report to federal government.

So there are a number of opportunities which actually turn out more in the electricity generation side on our treatment plants where you would get much better value than other projects. But for our council it has very much been driven by the sustainability and carbon neutrality understanding that efficiency will only get you a small part of the way. So if we had the most efficient bits everywhere it is still only a 10 per cent solution; we still need to worry about the other 90 per cent. Typically our street lights are $20 million in round figures per annum; 12 per cent of that is energy. So if we got down to zero watts for the lights we would be paying $18 million for nothing. It is really important that we balance the asset cost in the reductions.

Mr RYAN: Just a brief follow up. To Peter, and everyone else, you gave us a bit of an idea about the cost of lighting and energy consumption. I wonder if you could give a brief breakdown of where the energy consumption is for councils. How much is in water, sewerage, lighting and your operational side of things in the buildings? If you can give us a brief idea.

Mr Casey: I could probably give you a bit of a rough estimate from when Brisbane City Council had the whole of the water business. Half of the electricity went into water. Of the half that went into water, half was in the Mount Crosby pumping station pumping water up the hill. That is the electricity side of energy. By far the largest energy component that we use in Brisbane City Council is fuel for the buses—public transport fuel, keeping in mind that if we turned the buses electric we could actually halve their footprint, but the internal combustion engines are not terribly efficient so that for us is a unique problem that we have.

Mr Raymond: With Caboolture 50 per cent was through water assets, actually pumping water and sewage around the shire. That was probably the biggest thing.

CHAIR: Further comment?

Ms Metcalfe: I just wanted to make an overall comment. From the Council of Mayors' perspective, we focus more on policy and planning initiatives that will then help lead to the operational side of things. For the last year or so we have done a lot of work with the Department of Infrastructure and Planning on their SEQ Climate Change Management Plan. We are really focusing on the actions that are in that plan that will help achieve improvements to retrofitting and land use planning for climate change, so that is where we are really focusing.

CHAIR: Do you have any comment, Ngaire? I know that we are focusing on council buildings.

Ms McGaw: I have no idea about council operations, but it was obviously a shock to me to realise the energy consumption at that level. I am sure the community has no idea about that. It is great to hear that the Council of Mayors are linking in to give input to the Climate Change Management Plan. We have been trying to get people engaged in that in the community as well and we are very glad that the deadline has been extended to 9 October. It is really quite hard to engage the community on those sorts of documents. They are overwhelming and foreign. It would be good if there was a lot more community engagement around them in the lead up.

CHAIR: I think if the media focus was on the issue it would be much more widely spread.

Mrs ATTWOOD: I have a two-pronged question. The first is to council. We had discussions earlier on in this hearing about local council, state and federal government working a little bit better together coordinating their programs instead of doing a piecemeal thing trying to take ownership. My first question to council is: is council willing to actually talk to state and federal government regarding any programs in relation to climate change such as the ClimateSmart program to try to coordinate that a little better and maybe even have the possibility of a one-stop shop in relation to climate change?

The next question is to Ngaire who has been working very hard with Sustainable Jamboree in my electorate for the last three or four years. In your submission you actually talked about making the take-up of these types of programs, such as the ClimateSmart program, mandatory. People need a bit of an incentive to actually use those facilities and use those initiatives of the government. How would you suggest that we make it mandatory for people to take up these programs?

Ms McGaw: That is the million dollar question. I tend to be a bit of a sticks girl now more than a carrots girl because I just feel so worried about climate change. We have been trying to do all this work in the community to bring people along. I can see a lot of the advertising around the ClimateSmart program has been friendly and has had a huge budget, obviously, from the outside looking in and yet still people are 'vagued out' about it when I talk to them. I can't believe they would miss advertising like that and still not understand what it is that they are getting. It is really hard to get people's attention. That is another reason why I am in for the sticks because until people are jolted into it I don't think they are going to really do it. Obviously winning hearts and minds over with a sticks approach is a bit harder. I can't really offer much suggestion there except to really explain to people why it is so necessary and the urgency of climate change. As you mentioned before, the media really don't do us any justice to try to get the community understanding just what we are facing. There are plenty of examples of people resisting interventions from government, but I think we really have to be brave now considering what is at stake.

Mrs ATTWOOD: The media have always been in a bit of denial as far as climate change is concerned. We are talking about trying to make the message simple and having the information available made simple so people can actually understand what is being offered and trying to provide some incentive for their take-up in regulating when you sell your house you have to meet certain ClimateSmart conditions and doing it that way so that people will ask a question about what is available so far as environmental incentives are concerned. How does council feel about working with state and federal government in relation to programs?

Ms Metcalfe: We absolutely support that. One of our key goals is to work better on that alignment with the state and federal government. There are so many programs out there at the moment doing great things and obviously if there is a bit more coordination then we will not have any of that duplication. We have had a fairly good process running working with LGIS and the Department of Environment and Resource Management on the ClimateSmart program. A lot of the councils over the last few months have done a lot of marketing support for that program. We did look at some other initiatives as well to enhance that program through what councils could do to help get uptake and in certain cases a lot of that work has been going on. It is definitely a good example of complementary work that could happen once we know what different people are focusing on. Basically I say we are completely supportive of any partnership programs.

Mrs Gardner: Following on from there, the Gold Coast is so concerned about the need for governments at all levels to be working together that we are holding a climate change summit on 26 October. The theme is 'governments united in the challenge'. We have invited the Premier and Minister Kate Jones. We are hoping that we might be able to have a conversation there and develop some principles around how the governments of Australia would work together and battle this enormous challenge that we face.

CHAIR: Could you please extend an invitation to this committee?

Mrs Gardner: Absolutely.

Mr Raymond: We would also definitely support working with state and federal governments. We have set up a number of community programs to try to educate people about some of the issues. We actually got funding from the state government to run one of the programs and then a couple of months later another program came out from the state government that was very similar to ours. There was a bit of frustration because of that overlap. Hopefully summits like that will reduce that overlapping.

CHAIR: Any more comments?

Ms McGaw: Julie, you mentioned in your original question a one-stop shop. I can really say that people are confused. There are different programs on offer from three different levels of government. I am getting calls from as far as Bundaberg. I do not know. The person from Bundaberg said she googled the Queensland Government Solar Hot Water Program and the Sustainable Jamborre phone number wsa the only one she could find.

Mrs ATTWOOD: You are very well known out there.

Ms McGaw: It is hard for me to keep up to date with everything, actually. There are a few different hotlines around, but people do not know about them. Some of the uptake on these programs might be better if there was a well-known phone number so that people could not only get things mailed to them, but actually chat through the issues with someone on the phone in a meaningful way to try to get to the bottom of their situation.

Mrs ATTWOOD: It is a good idea.

Ms Metcalfe: To add to that, particularly with any of the rebate programs, it seems that they are the ones that get that real public profile, where people know they can get a solar hot-water rebate or ClimateSmart Home Service rebate. They are the ones that get the attention and that is where it gets most confusing.

Mrs ATTWOOD: Yes, that is right. A financial incentive always helps.

Ms McGaw: The media do not help. They say, 'The rebate has been removed,' but they do not tell us that something else is in place.

Mrs ATTWOOD: That is where it gets very confusing, when people have actually applied for the program but have not got the product yet and then the program finishes.

CHAIR: I would like to add my congratulations to Moreton Bay Regional Council. I am one of the local members for the area. Mark Ryan is also part of the new Moreton Bay Regional Council area. They have gone out of their way to work with the state government and its representatives. I would like you to pass on my congratulations to the mayor for doing that because the cooperation levels are very high and we very much appreciate that level of cooperation. I also extend my congratulations to the Brisbane City Council for their $50 rebate on our ClimateSmart Home Service. I am wondering what inspired you to do that and whether perhaps you could pass that on to the other councils.

Mr Casey: We were actually intending to run the program for the state government and essentially the state government picked it up. We were running with the idea that if you cannot measure it you cannot manage it. It was really important to ensure that people got metering in their homes so that they could understand what their fridge was using and what their plasma television was using, particularly when it was in stand-by mode. People have to also understand that if they run their air conditioner for four days a year and it is sitting on stand-by it is probably costing 35 watts, 24 hours a day, seven days a week for the other 360 days of the year—$50 to $70 worth of electricity for nothing. These are the common things that we saw that were critical when we were starting to kick off that program.

We had actually bought our meters by the time the state government announced the program. Rather than funding our own program we decided to leverage off the existing program that the state was introducing. We are doing the same with solar hot-water systems. As you are aware, we run a solar hot water rebate which I think has put solar hot water back on the national agenda as the cheapest and most effective climate change and energy efficiency option available in Australia.

With the state government's 200,000 hot-water systems we are again giving a $50 discount on the plumbing inspections for all residents of Brisbane, again to give the message that this is the right thing to do; it is not just 'because the money is right, jump in and do it'. It reinforces that strong message around solar and renewables as being a critical part of what people can do in the community.

CHAIR: What does that bring the cost for that plumbing inspection down to?

Mr Casey: It varies across most of the councils, but I think Brisbane is one of the cheapest. We charge $111 for a plumbing inspection. It is a mandatory requirement under Queensland law. That brings it down to $61.

CHAIR: Would you encourage other councils to do that?

Mr Casey: I think other councils certainly would be seeing it as an important issue. We would like to see the effort concentrated in South-East Queensland, certainly in Brisbane. I would certainly suggest that other people look at what they could do in terms of reducing the cost. Again, with a larger program with the supply of solar hot-water systems there is some streamlining and things available that might help fund that process.

Mr Raymond: Last week Moreton Bay Regional Council reduced their fees to $75 from $160-odd.

CHAIR: From $169?

Mr Raymond: It was $160-odd. I cannot remember exactly.

CHAIR: That was the latest advice from our office—that Moreton Bay was going to charge $169. So you have reduced it to—

Mr Raymond: I think it is $75, from memory.

CHAIR: Due to cooperative relations between state members and local council no doubt!

Mr Raymond: No doubt.

CHAIR: Thank you. That is excellent. I am very pleased to hear that.

Mr RYAN: Our lobbying paid off.

CHAIR: It did. Wonderful lobbying.

Mrs Gardner: I believe Gold Coast has an agenda item about to go to council on that same issue.

CHAIR: I congratulate you on that. That is tremendous. It will be good for the ratepayers of our area.

Mr RYAN: Can I just make a general comment? I am pleased to hear the proposed decrease by the Moreton Bay Regional Council. It is all about the partnerships. This is about the three levels of government working together and making it as cost-effective to consumers as possible. It is the most appropriate course when we talk about partnerships. I acknowledge the hard work of Brisbane, the Gold Coast and Moreton Bay in working together with the other levels of government to achieve that.

Mr Casey: We have also extended it to all solar hot-water systems including replacement of gas, which is not covered by the state or federal scheme.

CHAIR: It also shares the burden of the economic value.

Mr DOWLING: There has been a discussion that the primary users of power within a council environment are water and sewage treatment and the other principal one is streetlighting. Buildings then fall down the line. With streetlighting there was mention of solar—and I think, Mark, you might have mentioned it—being on trial in the Moreton Bay Regional Council area. It is probably more slipping into alternative energy, but have there been any studies done on solar as an option for streetlighting, including whole-of-life—the batteries, the whole thing? Sometimes they seem good on the surface but when you do the whole-of-life evaluation they are not that advantageous.

The other thing I was wondering about was solar as an instrument. Are there opportunities within council for solar powering their buildings et cetera? It is one of those things—like office towers that are only functioning largely during the day and it is the driving of computers, lighting, air conditioning and things like that. Has anyone done any studies along those lines? Is there any opportunity there?

Mr Casey: Yes, we have done some studies. We have had many people visit suggesting putting solar streetlights in. All indications are that the cost is of the order of at least 10 times higher over the whole of life. The work done by McKenzie on climate change et cetera has shown solar PVs to be the most expensive alternative option. Concentrating solar or solar thermal is a totally different technology when you move to the large scale. But tiny ones on roofs only make sense if you are pouring a lot of government money into them. That again applies to solar on council buildings. None of those makes sense unless there is an equivalent incentive that homeowners get. I think the current process is around $7,000 a kilowatt being the amount of money being poured in whereas we can get wind at $4 or $5 a kilowatt. Without the subsidies those sorts of things do not make a lot of sense. They are around demonstration projects et cetera, but we probably have more than enough demonstration projects, I would suggest. We really need to be moving into the horsepower of changing to real-scale alternative energy supplies.

Mrs Gardner: Gold Coast has done a recent study that is about to go to council on the feasibility of energy generation locally. We have found that the price of wind has come down a little but we do not have an average wind speed in sufficient locations to support wind on the Gold Coast. Tidal or wave energy is not something that is available to us in terms of the kind of energy that would be produced—or the stability for that—for the Gold Coast. That sort of cancels it out. Distributed energy for residential areas is certainly something that has positive feasibility and we should be looking at it in the future. In terms of solar PVs for powering council operations, again it is cost prohibitive for us largely. That is what the study shows. It will be available publicly probably by the end of October.

Mr Raymond: That is the case for Moreton Bay; it is just cost prohibitive.

Mr DOWLING: I think Mark said on your behalf that you are trialling solar lighting.

Mr RYAN: In a couple of parks in Caboolture South.

Mr Raymond: It may be cheaper because it is not on the grid. So to dig trenches and put it in there—

Mr DOWLING: So in remote locations there is probably some value in it?

Mr Casey: We have had a similar experience. We have a number of bikeways that do not have wire access. In some of those cases pure economics makes it worthwhile. When you connect it to the grid it is not economical.

Mr SEENEY: I ask the panel generally a question about building codes. We talked in an earlier session about building codes. I notice it was addressed by the councils in their submissions at least. What role do you see for building codes in improving energy efficiency? Are there any impediments in the current building codes that you think need to be addressed with some urgency in regard to energy efficiency?

Mr Casey: If we look at moving forward, particularly in Brisbane's case where we will be seeing 50 per cent of new housing stock being multi-unit residential, the code standards there are much lower than for individual houses. The codes do not have performance standards around how much energy the actual household or unit should use or minimum standards. As we move forward, if we do not get the new stock down to much better energy use than the existing stock we are never going to meet the targets because there is a lot of stock out there that are poor performers. So around building codes it is about moving as fast as we can to as high a standard as possible in terms of energy efficiency, really encouraging a change in design.

Particularly in Queensland, we have a climate where we do not need a lot of heating. We are using lots more air conditioning than we used in the past. We need to learn from some of our history—better design of buildings to take advantage of the natural air conditioning or low-energy housing construction. Once the codes move, competitive behaviour can occur around a six-star house as opposed to 'I can get a competitive advantage by offering a lower energy rating'.

This goes back to how buildings are sold. We all know what the price is when we buy them and we know what the interest rates are because they are on the cover or the second page of the newspaper. However, not too many people understand what the running costs or the energy impact of a house is when they purchase it. Until that becomes one of the issues that is really addressed directly in the codes, I think we will see a lot of difficulty in getting high-quality low-energy housing.

Mr SEENEY: It has been suggested to me—and I put it to you as a panel to get your comments—that the codes generally and the star ratings in particular are more influenced by housing requirements in southern states and do not properly take account of the Queensland climate and do not produce the outcomes that we need here but rather produce suburbs of Cairns, Townsville and Brisbane that look like suburbs of Sydney and Melbourne.

Mr Casey: That has certainly been what we are seeing on the ground but with moving to a five-star rating system we might start to see a change. I do not think it is the whole problem, but I think it is certainly part of the problem.

Mr SEENEY: Do you think the current system has the ability to produce a uniquely Queensland style of energy efficient house or are we going to end up with something that looks like Sydney and Melbourne?

Mr Casey: I am not across the details to make a comment. I think it is certainly a possibility.

Mr Raymond: You would probably find that they would be similar just because of economies of scale of some of the developments. They are not just based in Queensland. They get designs done in Victoria. I think it is more of an urban design and probably the design for climate and lifestyle would be different. So it is more about education of what the options are up here rather than what is the most energy efficient. We have a lot of different materials up here that we can use that are not necessarily very well used down south because they are not appropriate.

CHAIR: I have done my bit for energy efficiency today. I have asked them to turn down the air conditioning. It is freezing.

Mrs ATTWOOD: Following on from Jeff's question about planning and design and star ratings, does council take into consideration street layouts, subdivision designs and aesthetics in relation to design and development in terms of maximising the benefits of energy efficiency developments or is it basically how many houses you can fit on a block?

Mr Casey: I think the answer is that we would like to and we try to encourage it but that is not actually in the planning scheme. For example, we have no power for us to determine solar access for houses. We do things around what the shell of the building looks like and the type of activity on the site, but there are no performance standards in terms of housing. I think that is what is missing from the coding—houses should be able to house two people or four people or whatever at a certain number of kilowatt hours on average per annum. Those kinds of performance standards are not built into it. It is more around the shell, the materials and plot ratios and those kinds of things. Planning is certainly not my area of expertise.

Ms Metcalfe: That is a lot of the detail that we have been asking for in the climate change management plan that is out at the moment. There are a lot of planning actions in there that will hopefully lead to that detail. We have been asking for that to be developed as quickly as possible so that we can look at those new approaches. A lot of councils are starting to prepare the new planning schemes for their amalgamated councils. A lot of those new approaches to design of new areas and having a real energy efficiency focus will be something councils really need a lot of policy and information on. It is a big issue to be addressed.

Mr Raymond: That would be fantastic guidance from the state so that it is not different between councils as well. That seems to be a big issue with energy efficiency and the set out of developments. You can cross the street and it could be completely different if they are in different council areas.

Mrs Gardner: In terms of timing for that sort of information, a number of councils at the moment are embarking on planning scheme reviews right now. So it is really important that that happens as soon as possible. Otherwise we are going to have another generation of planning schemes that are not going to have those components within them.

Mrs ATTWOOD: That makes sense. I have a question for Ngaire in relation to her involvement with the community. What are the types of people who are taking up the climate change options? Are they people with fairly modern ideas about building new houses, sustainable houses? What are the groups that are taking up climate change options?

Ms McGaw: I am not sure about the take-up of government programs, but with the people turning up to the seminars that we run to offer information about accessing those programs quite a lot of the time we felt that we were preaching to the converted. But I have noticed with the last few events that we have had 50 people whom we have never seen before with a smaller proportion of people who come regularly because they just cannot get enough. I think there has been a slight change in the last couple of events that we have run. But it is always difficult.

I was talking to a man at the bus stop this week. He had been in the area for 10 years about the same as I have. He has never heard of Sustainable Jamboree or seen it in the paper or seen any of our letterbox drops. But he mentioned that his children were at the jamboree primary school doing a carbon challenge. I said, 'Well that's our project. At least you've had some exposure.' It is really very hard to get

people's attention on any of this stuff. He seemed very enthusiastic about the information that I was giving to him. I mentioned that his house was perfect for solar as far as the aspect goes. I mentioned that 'For the greener good' website had been launched about the new building codes. He seemed interested.

The next day I hand-delivered a pack of information about these things. At that point he just said, 'Oh, well, I won't open it yet. We've just bought a big screen TV, and I've got a few things I need to do on the house.' So it is really hard to gauge. Sometimes they seem keen and other times they shut off. It is going to take a lot of marketing communications to break through to people I think. But it is not just that. With the ClimateSmart Home Service you get all of this marketing and people get a one-off service but because there is no ongoing dialogue with that group you lose the impetus, and you do not get that social diffusion happening I do not think as much as you could.

Mrs ATTWOOD: You are doing the right thing about going to schools and talking to kids about it because they usually take the message home, don't they?

Ms McGaw: That is exactly what happened. It was the only thing that really was the clincher for this man I was talking to.

CHAIR: How far do you travel?

Ms McGaw: We do mail-outs of about 12,000 or so, sometimes 15,000, in the Centenary suburbs. Sometimes we network with groups in Kenmore and Graceville—so beyond what is considered the Centenary area. Sometimes we go as far as Forest Lake. But it is really the email list that I find is the most effective way to get people's attention. We always collect evaluation information after every session to find out how they found out, and the large majority of people find out through a regular email newsletter that we use. Yet we still get people turning up who do not even have a computer at home. We have to cater for everyone in terms of getting the message out.

CHAIR: I believe Mark has a final question.

Mr RYAN: I have a final question and it is to Ngaire. I have to say first up that Julie has been singing your praises for weeks.

Ms McGaw: It is hard work out there. It is a jungle out there.

Mr RYAN: I would like to commend you on all the work you are doing. If you are ever thinking about moving, the electorate of Morayfield would welcome you with open arms. My question is about getting the message out and empowering people in the community to get involved with energy efficient measures and to get involved in this debate more broadly. Does it boil down to just an issue about cost or is it an issue about the environment? And how does government communicate that message and empower people to get involved?

Ms McGaw: Cost is a big issue. My background is health promotion, which is about empowering communities and providing supportive environments for change—a good balance of sticks and carrots I suppose. The cost aspect is definitely a barrier, even amongst the people who signed up for the Low Carbon Diet. They say, 'We've done as much as we can but the barriers are too great to go any further.' It is disappointing when that happens. The interactive nature of what we do is critical. We ran two energy efficiency events in the last week or so. People who I knew turned up and were clearly still confused after two hours of talking. They rang Julie's office and also rang me. It took so much effort to finally get to a point where I think they understood. So a lot of interaction is needed. There are not that many community groups around playing that role to get the social diffusion going and help people in a face-to-face, meaningful and supportive way.

CHAIR: Does the committee have any further questions?

Mr DOWLING: Would it assist councils in implementing energy efficiency improvements and to secure the necessary support within the organisations if they published case studies about the cost benefits to the community of energy efficiency?

Mrs Gardner: It certainly would. Any opportunity to put information forward to the public is something that is very positive. From the point of view of the way the Gold Coast approaches things, we understand that there is a proportion of the community that will take these steps because they see the benefits of being more green, if you like, but there is a proportion of the community that you are never going to win over from the green aspect. But financially these things have everybody in the pocket. So that is a way that you can capitalise on the communication message by putting forward some of those case studies around cost savings, definitely.

Mr Raymond: Case studies are a good part of the capacity building of community and also industry. That is one of the issues we raised in our submission—the capacity building of not only community, which is important, but also industry, salespeople, tradespeople and facilities management. They are the ones that make the decisions. We can do a lot in terms of educating people so that someone will come in and say, 'I want an energy efficient fridge,' but if the salesperson says, 'Oh, no. This one is better because I will get a better profit on this one,' and that results in better sales then more needs to be done. It is really important for people to have more awareness about energy efficiency, but I think building capacity within industry is particularly important.

Mr McCoy: For us, the energy efficiency industry is evolving so quickly and case studies are a good way of keeping up with the leading technologies that are available and the leading practices as far as energy efficiency is concerned. That is something I have been looking for—guidelines or some sort of objective forum on what are the leading practices available in energy efficiency technologies.

CHAIR: Does anyone from the panel have any further comment? I take this opportunity on behalf of the committee to thank you very much for taking the time in your very busy schedules. Your submissions were excellent. We had over 40 submissions. We have had to try to read them and assess all the information. There are some good ideas in pretty much all of them. Obviously government cannot possibly take up all of those initiatives, particularly on its own, and we are relying fairly heavily on individuals, community groups, local government or all levels of government and business as well to all do their bit. We are very much looking forward hopefully to working closer with local government on some of the initiatives that we propose to government in a report that we are going to present to parliament in November. So once again thank you very much. We very much appreciate your time today.

COMBER, Mr Dean Rayner, Acting Group Manager Climate Change, Ergon Energy Corporation Ltd

DODSON, Mr Matthew Hirst, Network Command Manager, Energex Ltd

EASTON, Mr Mark Patrick, Group Manager CSO & Strategic Projects, Ergon Energy Corporation Ltd

LEE, Mr Gavin James, General Manager Demand Management, Ergon Energy Corporation Ltd

CHAIR: Welcome. This section is for the energy providers. We have had quite a number of interesting speakers today representing various groups—business, community and individuals. We just heard from local councils, and all are doing their bit, I am very pleased to say, with regard to energy efficiency. There have been a lot of ideas that they have put in as part of their submissions. As you have probably heard, we cannot do it all. We are fairly reliant on everybody to do their bit so we can form a good partnership to recommend some of these wonderful initiatives to government which may take them on board.

Welcome, gentlemen. We had a panel of women this morning and now we have a panel of gentlemen. We are going to make this hearing as comfortable and as efficient as possible. I am Carryn Sullivan, the member for Pumicestone and the chair of the committee. We represent a bipartisan group of government and non-government members. We are here today to hear from you and to ask some questions of you. Before we ask our questions, I was wondering whether any of you would like to make a brief opening statement.

Mr Comber: I was one of the key authors of the paper so I will give you an overview from our perspective. As predominantly a distribution business, Ergon Energy is also a retailer in regional Queensland. Our thrust was to stress the importance of considering electricity demand management in the energy efficiency equation. We do see the two issues of energy efficiency and demand management being enmeshed. We certainly appreciate this opportunity to articulate some of the issues in this forum.

Energy efficiency delivers a value to customers in terms of reduced costs in electricity and delivers a value in terms of greenhouse gas reduction. One of the things we want to stress in our presentation is the value that is delivered right through the electricity supply chain through the distribution and transmission stages. There is a difference in the relative value of energy efficiency in a metropolitan area versus a rural area due to the cost of supply for the distribution and transmission networks.

We highlight in our submission that about 40 per cent of all energy usage occurs in the residential market. The residential market contributes a higher percentage to the peak demand. That is something for consideration. Certainly air conditioners are a key driver of both the overall energy demand and especially peak demand. In some areas we are getting near to a saturation point, but there are still some areas, especially in Ergon Energy's area, where there is still capacity for a lot more air conditioners to be installed.

One of the key barriers that we identified is a general lack of awareness about energy efficiency and about what can be done. A lot of that comes from a relatively low level of emotional involvement in electricity supply. As long as the power is there, a lot of people do not care too much more about it. With rising electricity prices and climate change awareness, we are seeing that start to change.

Mr Dodson: To reiterate what Dean has said, probably the least understood cost driver behind the future of electricity costs is peak demand. I will use as a reference point the Queensland Competition Authority. They review the retail prices annually and they have a cost index that they use. If you looked at that cost index perhaps three years ago, the proportion of that cost that related to energy use on a residential basis was probably about 48 to 49 per cent. Distribution and transmission costs were probably about 43 per cent. In three years time that has reversed, so distribution and transmission costs are 49 per cent and the energy cost component of a customer's bill is now down to about 43 per cent.

If you project that forward, the proportion of distribution and transmission costs that will be appearing on a customer's bill into the future will be a high proportion, and this is a reflection of both peak demand and the infrastructure that is required to supply that. They are some public facts that are sitting behind it. To reinforce what Dean was saying, there is really a dual issue to be looked at. Energy efficiency is certainly a critical thing in terms of greenhouse gas emissions. We are wholly supporting initiatives behind that, but the giant sleeper is the future infrastructure costs to supply that demand for air conditioners and other appliances at peak times. That is a serious issue for the distributors and the transmission companies in Queensland.

CHAIR: Is there any further comment before I open it up to the committee for questions?

Mr SEENEY: I would like to explore the issue of peak demand and the effect that air conditioners have on peak demand, because I think it is recognised as being a critical issue. It has been suggested to this committee that the infrastructure cost of each additional air conditioner is between $3,000 and $5,000. I am not sure whether there is any credibility behind those figures. Has either Energex or Ergon done any work on establishing just what air conditioners cost in terms of adding to the infrastructure cost because of the effect that they have on peak demand?

Mr Dodson: I will just take one step back from that and look at the cost of any electrical load on the network, and then you can translate that into an air conditioner. Some work that both Ergon and Energex have jointly conducted in conjunction with the Office of Clean Energy and the Office of Climate Change is to look at the distribution, transmission and generations costs in supplying one megawatt of energy. One megawatt is a thousand kilowatts of energy or a million watts of energy. An air conditioner probably uses about two to 2.4 kilowatts of energy. The cost of supplying one megawatt of electricity is approximately for Energex about $2.09 million per megawatt. If you look in Ergon's territory, that could be closer to the $3 million mark?

Mr Lee: Yes, for an overall number.

Mr Dodson: If you look at the cost of generation, generation very roughly costs $800,000 per megawatt and transmission very roughly costs $700,000 per megawatt. If you were to add all those numbers up, you are probably looking at about $3.5 million per megawatt. One two-kilowatt air conditioner would probably be in the order of $6,000 to $7,000 in terms of the distribution cost that sits behind to supply that air conditioner's energy.

Mr SEENEY: The difference with air conditioners is that they add substantially to that peak demand on a hot summer's afternoon.

Mr Dodson: Yes. If you look at a daily load curve—that is the load curve that sits on a day—that is not a hot day and then on a day that is a hot day, then what we call the thermally induced load—in other words, the load that comes on as a result of it being hot; not only air conditioners but fridges, freezers, chillers and coolers all work harder—is certainly a big component of it. Residential air conditioning is a large part of that thermal induced load.

CHAIR: I have been told that compared to other countries electricity in this country is quite cheap. Do people like me who do not have air conditioners subsidise those who do?

Mr Lee: I think it really depends, but low-volume consumers could be seen to be subsidising high-volume consumers, is probably the way to look at it. Someone with air conditioning is possibly a high-volume consumer; it just depends how they use the air conditioner. Some people will only use it sparingly when they need it. Others feel it is something that is part of their life and they probably run it quite a bit more often than others. That is possibly the way to look at it. Low-volume consumers are subsidising the high-volume consumers, particularly those ones who are using it at those extreme peaks.

Mr SEENEY: That is what I was suggesting to you that, rather than the volume, it is the peaking. I put it to you—and you can correct me if you think otherwise—that if a high-volume user is using a significant proportion of that high volume in the middle of the night it is not as significant as the use in and around that high peak period.

Mr Lee: That would be correct.

Mr SEENEY: To follow on from Madam Chair's question, is it not so that people who insist on using air conditioners at peak times are being subsidised by those of us who do not?

Mr Dodson: Could I try to answer that? It is a difficult one. If you hypothetically had one house with, and just for the sake of it I will say, a couple who may be elderly who have not decided to use an air conditioner and a house next door to them with a younger family who have been influenced by the comfort that they are looking for and have bought an air conditioner, the charge that comes through the tariff mechanism to those customers is the same kilowatt hour charge per kilowatt energy that they both use, which after GST at the moment is 18.8c. I forgot that 30 June has just rolled past.

At 18-plus cents per kilowatt hour they are both paying the same kilowatt hour charge per volume of electricity; however, the network asset that is sitting behind to support the air conditioner is a greater network asset than that sitting behind to support the household that does not have an air conditioner. They may have a kettle or a hot-water system. So the per kilowatt hour charge is the same. On the other hand, the house that uses the air conditioner uses more energy and therefore they pay for more kilowatt hours. It is probably fair to say that there is an opportunity to look at a balancing of the charges between those that use energy at peak times and those that do not use energy at peak times.

Mr SEENEY: Is it not the case that the cost of providing the infrastructure to meet the peak load is spread across all of the power consumption?

Mr Dodson: That is correct, yes.

Mr SEENEY: That is the element of the subsidy that I think needs to be corrected.

Mr Lee: I will add a little more information. Picking up on Matthew's point, it brings in also the issue around whether or not pricing is cost reflective. If pricing to the customer is truly cost reflective then you are somewhat indifferent about whether they are consuming lots or little because they will be paying an appropriate amount for their demand and their consumption. That is an another aspect that you need to be aware of. Some of those comments are made in the context of current pricing.

Mrs ATTWOOD: Can I go on from that. In terms of making the user pay, if somebody is using an air conditioner in peak time how is it possible to actually make that person or that family suffer the consequences of that by paying more for their electricity?

Mr SEENEY: How do we achieve that cost reflectiveness that you refer to?

Mr Dodson: The distributors are a bit like the providers of a road. So we provide the road along which the electrons can flow. The electrons are like using petrol. How much petrol you use depends on how fast you drive. We provide the road. If you use that analogy in a user-pays environment, when the customer receives their energy bill they are in fact receiving two charges. They are receiving one charge for the use of the infrastructure and another charge for the energy component that flows through that.

If you were to have a toll road, you pay for your use of that toll road and how fast you drive along it is a separate equation. You do not get a bundled bill for it. When a retailer bundles the bill and sends it to the customer they receive both a charge for their energy and a charge for their asset utilisation.

Certainly there is an opportunity, as Gavin said, to explore cost reflective pricing such that in the example I gave before the house that has a greater proportion of peak demand pays perhaps on a kilowatt basis rather than a kilowatt hour basis or for the kilowatt hours they use at peak or whatever the different options are.

Mrs ATTWOOD: Is that difficult to determine? How hard is it to determine kilowatts instead of kilowatt hours?

Mr Dodson: That is not difficult to determine, no. However, with the current metering arrangements that are in place for residential customers that is difficult. There are potential ways into the future where you may be able to overcome that.

Mr Easton: The other thing that needs to be borne in mind with that cost is that it is a network driven cost. As we are talking about peak demand, it is the need to build the network to cope with that that is the driver of the cost rather than the volume of electricity necessarily being used at the time. So to the extent you have a desire, say, to see that customers are being charged a higher rate at that particular point in time, that comes down really to a signal in a network price.

That has historically been regulated by the QCA in Queensland. As of 1 July next year—and we are going through the process at the moment—the AER, the Australian Energy Regulator, will determine the prices that both Ergon and Energex can charge. There is a regulated process that sets those prices. Both businesses are always looking at how they can appropriately structure their prices to recover costs and also to send those signals to customers but we are subject to a framework that is governed by the AER.

There is a process that needs to be gone through in order to change any tariffs, including consultation with customers, trials and that sort of thing. It is not an easy process to change. The important thing as well is, to the extent that there might be a desire in a retail tariff—which is the QCA's responsibility now to determine—to build a higher cost into the retail component which is not reflected by the network price which underlies it, which is actually driving that peak demand, you would be creating a tariff that is not reflective of the actual cost and essentially bringing therefore greater profit to a retailer under that circumstance. We need to be careful about where the signal is coming from, what the driving signal is and therefore which component of the cost is the one that needs to provide that signal to the customer.

Mr SEENEY: So how then would you suggest is the best way to create a tariff that does provide those signals given the structure that you have just outlined? That is the challenge, is it not? To get the most efficient network you would have a tariff that spreads the total usage across the 24-hour period evenly. That would be the most efficient use of the asset that is the distribution network. We are never going to get that. How would you suggest that you arrive at a tariff structure that encourages the most efficient use of the distribution network asset?

Mr Easton: I will say that I am not a network pricing expert. The QCA is in the process of doing a retail tariff review at present. The approach that the QCA has recommended to go forward with with retail tariffs is that retail tariffs—and it has made a recommendation to the government—be structured by incorporating a cost build-up approach which incorporates directly the underlying network price. The other components you would then build in, if you look at the cost stack in providing electricity, are the underlying network price, the wholesale energy cost, the retailing cost and then a retail margin. The QCA proposes that you have a cost build-up where you work out the efficient costs for those other components and pass through the network cost.

That retail structure presents then the opportunity for a network price signal, a network demand signal or capacity signal which does put in a higher price for higher demand. That sort of retail tariff structure where you have a network price pass through does allow any signal that has been created, any price that is generated by the network businesses—Ergon or Energex in Queensland—to be seen by customers.

The process of how those tariffs might be appropriately structured is something that both businesses are looking at. I think in one way some of the concepts are easy but to come up with an appropriate price which is cost reflective, fair and achieves the reduction in peak demand is part of the challenge. But there is a process and a structure in place to allow that to occur. The step that the QCA proposes would allow that to happen in the future.

CHAIR: I want to pursue the issue of air conditioners. I want to carry on from what you were talking about before about infrastructure in the future being much more expensive. Obviously someone has to pay for it and that someone is the consumer. What would happen if everyone, apart from me, decided to put in an air conditioner tomorrow?

Mr Lee: That is not even a hypothetical. The fact is that people have at a fairly steady rate been putting air conditioners in for quite a few years.

CHAIR: I think only about 60 per cent of people actually have air conditioners. What if everyone decided to have one tomorrow?

Mr Lee: In North Queensland and Far North Queensland we have penetrations of air conditioning that are closer to 90 per cent. But the interesting thing is that they are air conditioners in bedrooms so they tend to run at night because people are looking for a comfortable night's sleep on those very hot, humid evenings.

The thing that we worry about is the living spaces that have not yet got an air conditioner in them and are more likely to be run between the hours of 5 pm and 8 pm. Energex's issue is that where air conditioning has been installed in South-East Queensland is in living spaces more generally as opposed to in bedrooms. It is an air conditioner that will run in those residential evening peak times.

Mr Dodson: It comes back to the cost reflectivity question.

CHAIR: The 49-46 per cent?

Mr Dodson: Yes, and the millions of dollars in infrastructure that sit behind. Ultimately when you have to build that infrastructure through the Queensland competition policy approach that was described before the costs get bundled up and then passed on to customers. Both of our organisations would like to see an outcome that lowers that peak demand.

We would certainly like to see the usage of appliances at times other than at peak times. We would certainly like to see some cost reflectivity of devices that are used at that peak time. To achieve that cost reflectivity there are generally two approaches—correct me if I have missed an approach. One is to look at the time of use. Some air conditioners may come on at two o'clock or three o'clock in the afternoon on a very hot afternoon. People come home early from work or school and the air conditioners stay on well into the evening—eight o'clock or nine o'clock at night. The substation I am on, which is at Ashgrove, peaks at 8.30 at night. Getting the time and somehow being able to reflect the price of the network at that time through to the customer's bill for their use at that time is one way. Another possible way is to have sort of like a broadband allocation. You might say, 'I might like to use six kilowatts,' and you sell that to the customer and they buy six kilowatts. If they want to buy more usage because they have put another air conditioner on, they buy a proportionately higher use of the network effectively in the same way as you buy broadband.

CHAIR: So you have been giving this some thought, obviously.

Mr Dodson: Yes, we have been giving it quite some thought. I suppose part of the processes we are looking at over the next two to three years is to run some trials on some of these things that we have been working on jointly with the Office of Clean Energy and the Office of Climate Change.

CHAIR: The Pumicestone electorate is just north of Brisbane, if you are interested in a pilot. We would be keen to have you on board.

Mr Lee: If I could just add something to what Matthew was saying, it is worth keeping in mind that price is but one aspect of what will get customers to change their behaviour. There is a whole range of other things that we come across and are dealing with. We heard the council people before us talking about information awareness. It is the advice they get perhaps from the tradesman who has come to install a new appliance. It is the advice they get from the sales representative when they are at the retail outlet trying to select an appliance. There is a whole range of other issues.

We are doing some trials ourselves in different locations. We are doing some trials in Mount Isa and we got some customer feedback focus group work ahead of the trial. We could not understand why clothes dryers were being used quite a bit in a place like Mount Isa, because you would have thought that with the dry weather it would be great for using an outside clothes line. However, some people find that the heat is so hot that they actually do not want to go out in the heat during the day. They are shiftworkers and not always in a position to put the clothes out. There are a whole range of other issues that are preventing people from undertaking change in their behaviours in terms of energy efficiency et cetera.

Mr DOWLING: With air conditioners are there the off-peak options like there are for hot water? Have you explored the opportunity for having off-peak air conditioners or controlling them or regulating them somewhere down the line?

Mr Dodson: Both Ergon and Energex have been conducting trials for the last two years. Ergon has been conducting some trials in Townsville and Energex has been conducting them in Brisbane. We work very closely with each other so we are not wasteful of the funds that we have. Ergon has trialled one type of technology in one area and we are trialling a different type of technology in another area. So we have hot water load control, as you were mentioning. There are over 700,000 customers in South-East Queensland and 300,000 or 400,000 of your 600,000 customers have hot water load control in your region.

Mr Lee: 350,000.

Mr Dodson: 350,000. Energex has about 450 megawatts of load under control—to give you an idea, that is about half of a power station equivalent of load that we are able to manually control—and Ergon has about 250 megawatts. So combined, 750 megawatts is the equivalent of a power station that we have avoided the cost of Queensland having to build, and it has taken a good 20 or 30 years to build up that capacity. So it then begs the question in terms of air conditioning: isn't there the same opportunity? The trials that we have been conducting have been looking at a technique called compressor cycling.

When a customer is air conditioned, there are three factors that amount to that comfort factor. The first, of course, is the coolness of the air. The second component is how fast the air is blowing past you. The third component is the humidity of the air. So if the air conditioner compressor is controlling the coolness of the air but it consumes 80 per cent of the energy—so if you have the other two factors continuing; in other words, air is continuing to be dehumidified and the air continues to flow—you are getting two-thirds of your comfort. In terms of the other third of your comfort, which uses 80 per cent of the energy, if we are able to turn the compressor on and off—and a compressor does normally turn on and off and all we do is put it in a regimented on-and-off cycle synchronised with, say, another 1,000 customers in a particular area—our trials to date have demonstrated about a 20 per cent load reduction at the peak that we are able to achieve.

This is a very delicate matter to deal with because customers generally do not like you playing around with their air conditioner. So the trials have been conducted on a voluntary basis and our drop-out rate from the trial is only five per cent. Three per cent to four per cent of that five per cent is simply due to customers who have moved house, so the actual drop-out rate from lack of comfort has been a small percentage. Both Ergon and Energex have the intention of expanding those trials in the next two to three years.

We are also working with Standards Australia on a new Australian standard. We have achieved one new Australian standard. I do not know if you know standards, but they take about two or three years to start at one end and pop out the other. We have enabled a new load control regime that is called a demand response enabling device, which enables a platform for load control to happen into the future. We are looking to take that to the next step to ask that to operate for air conditioners, pool pumps and hot-water systems.

There is often a Big Brother impact, so there is this thought that the utilities have some ulterior motive behind this. The only motive we have is that we recognise that prices are an impact to customers into the future and the more we can slow that down the better it is for the community and it is sustainable for us as an organisation in having a lower cost price pathway increase. Our objective in the long run would be to have a range of devices at the customer's end where we are able to, on a community basis, have a coordinated signal such that at peak times we make sure the hot-water systems are not operating and we make sure the clothes dryers in Mount Isa on the peakiest of day are perhaps turned off. It might inconvenience that customer for that couple of hours, but the community gets a benefit.

Similarly with air conditioning, if we can coordinate en masse air-conditioning cycling on a 40-degree day, a 20 per cent load reduction on a 4,000 or 5,000 megawatt peaking system adds another power station worth of savings where infrastructure could be avoided. Our projections through to the year 2025 between Ergon and Energex, if we are able to continue down this path, are that we think we could avoid the equivalent of one new power station and all of the infrastructure being built.

CHAIR: Does that answer your question?

Mr DOWLING: Yes, it does.

Mr Easton: Just before we move away from air conditioning, I want to come back and clarify one of the points I made earlier about the cost at that peak demand point being entirely network driven. To some extent, there is a degree of correlation in higher wholesale energy costs at those times of peak demand. So there will be some degree of, say, retailing cost differential at that point because wholesale energy costs may be higher. So it is not purely limited to a distribution cost for building the network, and all of that needs to be considered.

Mr SEENEY: Full price peaks a bit, too.

Mr DOWLING: In terms of cost-reflective electricity pricing, you have covered the mainstream stuff. Does that cost-reflective pricing have any ongoing impacts to the different sectors of the marketplace—that is, metro compared to regional or remote areas, business versus domestic? Is there a penalty for living out in the bush? Is there a cost to ship electricity around the countryside as there is with water, or is it a fairly low-cost operation once you have got the wiring?

Mr Easton: There is certainly a higher cost of delivering electricity to regional Queensland. Again, that is largely driven by the cost of building and operating the network, which is significantly bigger. Both Ergon and Energex have a similar total cost of allowed revenue—so a total cost of building and operating a network—but Ergon has about half as many customers. So you are looking at having to share a similar cost across half as many people, in very basic terms. So certainly there is a greater cost for supplying customers in regional Queensland, and that is the reason the Queensland government has the community service obligation policy.

So by having the uniform prices that are currently set, customers of similar characteristics—so residential customers—have access to tariff 11 and they will pay the same rate whether it is a house in Mount Isa or Townsville or Brisbane. Ergon Energy as a retailer experiences greater costs of supply—that is, partly those distribution costs. You also need to purchase more energy to get there. You have greater losses because you have energy travelling a greater distance. So there are a number of reasons why it costs more, but the community service obligation operates to bring the uniform tariff into play and make sure that customers are not disadvantaged by virtue of their location in the state.

Mr RYAN: I have a brief question about infrastructure and then hopefully I will try to change the subject so we can touch on some other things. We heard earlier on in another submission about power factor correction. I am not sure if you know about that term, but we heard from someone earlier that

Queensland is the only state that does not participate in power factor correction in Australia. I guess I wanted to get your views on that and maybe the reasons behind why we do not participate in that, because there was a submission that it can contribute to some reductions in peak load demand and energy efficiency generally. And then the change of subject is the partnerships with consumers. I know that Origin, for instance, offers interest-free loans for solar panels or solar hot-water systems. I wanted to get your views about where the energy companies can come together with consumers to drive energy efficiency solutions.

Mr Lee: I might start on the power factor correction and I think Matthew from Energex will follow up, because there is some work that both businesses are doing in that area. Energex is a little bit further advanced than we are. There is no question that power factor correction is a very cost-effective way of freeing up capacity in our networks. In terms of our current tariffs and the tariffs that are charged at a retail level, especially to industrial customers, we do have some capacity tariffs in those industrial customer segments but they are charged on kilowatts. That does not quite address what their total burden on our system is, because there is a measure known as kVA—kilovolt amperes—and there are many analogies that can be given about how that works. But it is certainly something that both our businesses are looking at and progressing through the processes of starting to change our tariffs.

We are at a stage where we are trying to assess the extent of the problem so that we can then obviously propose some sensible solutions. Then the process that we need to move on from that point, when we finally decide how we want to approach the problem, is to go through the process with the Australian Energy Regulator to start amending our prices. That will also involve significant customer consultation but, yes, absolutely. With regard to what you were told earlier, there are some very cost-effective ways of freeing up capacity in the network. Do you want to add to that?

Mr Dodson: There is an oft-used example—I do not know what has been explained to you before—

Mr Lee: The beer glass.

Mr Dodson: Yes. If you are going to pour a glass of beer, you can get two types of glasses of beer poured. One has this much beer in the bottom and that much froth and the other glass has beer that almost goes up to the rim with a nice little white froth. Without going into technicalities, electricity is very much the same. There is an efficient way of transporting electricity down the wires and there is an inefficient way, which is low power factor, which has a lot of froth in it. There is state based legislation that has a requirement of—

Mr Lee: Point eight for low-voltage customers and a .9 power factor for high-voltage customer.

Mr Dodson: So there is legislation in place that has that requirement. What has tended to happen over time is that, in order to measure that at the customer's end, that requires a certain amount of measurement. As Gavin was mentioning before, for larger customers with the higher power factor requirement, we are moving to introduce from 1 July next year what is called a kVA tariff, which means that over time customers will find it cost effective to improve their power factor and, therefore, improve the utilisation of the network.

For smaller customers, quite often that comes through standards implementation. For example, when we were looking at working with the Office of Climate Change on the smart energy, ClimateSmart home program, we were providing advice to them on energy use. We tested the light bulbs that they were going to be using. You can go to any retailer and buy very poor power factor light bulbs right through to very good ones. We tested about 10 bulbs when they were going through the selection. There were some at .5 and .5 is 50 per cent inefficient. Fortunately, the ones that ended up being chosen were .9, which is as good as the Australian standard. So standards play a very important role in the power factor. Certainly, we are very focused on that. We are very keen to support high power factor.

Mr Lee: If I can just move on to your second question. We are in the process at the moment of conducting a number of trials. We have a trial that is running under the name of Energy Savers Trial. We are trialling that in Mount Isa and in the northern beach area of Mackay. We are using the ClimateSmart Home Service and offering that to customers and, similar to what the Brisbane City Council is doing, offering to rebate the $50 charge. If the customer chooses to, we then offer them a follow-up visit from an Ergon Energy person, which we call a home efficiency check. The purpose of that is to take some more time with them and talk through the information that has come out of the smart homes service check, give them some more information about what changes they can make towards saving and also talking them through various government rebates. As part of this trial, we are offering some additional rebates ourselves. We are looking at promoting solar hot water, using heat-pump hot water, rebates towards topping up the federal government rebate for ceiling insulation and we are also offering some rebates if they happen to have a hot-water system that is still on a continuous supply. If it is suitable we provide a contribution towards getting the electrician out to rewire that so they can take advantage of off-peak supply and save some money. We are in the very early stages of that. That has been rolling out now for about four weeks. Part of our aim is to understand how we can use these sorts of programs to engage with the community and get them to change their behaviours and, obviously, deliver reductions in energy and demand on our system.

There is an additional program that we are just in the very early planning stages of that we will be piloting at three isolated communities. Isolated communities are our isolated power system communities. That is Thursday Island, Horn Island and the northern peninsula area. That is a similar sort of program in

terms of providing energy efficiency audits to customers and advice on how they can change their behaviours or change their appliance mix. In this particular instance, we have a very strong focus on making sure that our community engagement is culturally appropriate and takes into account the Torres Strait Islander culture in this instance with the view to basically finding ways to run these sorts of programs to help our customers save energy.

CHAIR: We heard from a couple of people this morning that there was a lack of follow-up on the ClimateSmart/home smart programs. You have taken it upon yourselves to do that?

Mr Lee: Yes.

CHAIR: And that has been going for four weeks.

Mr Lee: Yes, at this point in time, four weeks. Our early figures show that about one in two customers are taking up our offer to come and talk to them. We offer either an in-person visit or over the phone, depending on what they can fit into their schedule. That is not too bad, considering that you are asking someone to be at home again for another visit. Everyone is very busy and even finding the one hour or so for the ClimateSmart Home Service is hard for some people. So those numbers are fairly promising for us.

CHAIR: So is there a website or a phone number that people can ring?

Mr Lee: For those people involved in the trial? Yes, there are phone numbers and websites for them to visit.

CHAIR: That is well known?

Mr Lee: In those communities it is, yes. There is direct mail advertising and all of those sorts things, because we are very keen to get as many customers on those trials as we can.

Mrs ATTWOOD: There is one question that I need to know the answer for. It is regarding energy consumption targets. I am very interested in that. You talked about that in your submission. Along what lines were you thinking about setting targets? Like water-saving targets? Along the some lines as that for energy saving targets? What sort of targets are you looking at? How are you planning to—if at all—make it benefit the community by saving energy?

Mr Lee: We have seen what has been done with the water-saving targets and the benefits where people are able to see how their consumption compares to that of other people in their community.

Mrs ATTWOOD: Yes.

Mr Lee: This comes back to the awareness and the education and information question in terms of energy efficiency. I will just provide some feedback that we have had once again from our focus groups when conducting our Mount Isa trials. There were a number of people there who were felt that they were already quite energy efficient. They had put some compact fluorescent bulbs in, they felt that they were not using their air conditioner very much and things like that. So from their perspective they felt that they were already quite energy efficient. The advantage of having some sort of comparison with other people in their community is that it gives them something that they can measure themselves against.

We have not done a lot of work in terms of what the targets might be, because there are a lot of things to consider in that. Is it per household? Is it per person? What is the community that you are benchmarking them against? Is it all of Queensland? Is it just their postcode? There are all of those sorts of things. So there are quite a few things to go through.

However, Ergon Energy is running a trial in Mackay—and if it has not started it is going to start soon—where we are looking at providing some benchmarking to people in Mackay on their bill to see what sort of feedback we get from those customers and whether they find it valuable et cetera.

Mrs ATTWOOD: You were going to ask your customers in Mackay whether they should set targets or how they would set targets? Is that what the plan is?

Mr Lee: I am not 100 per cent certain on this. I think we are using the Mackay Regional Council area as the benchmark. So we are taking the customer average from that area. We have the billing information and it is about picking up what you can use in your database. They are tagged as postcodes, they are tagged as council areas. It is what you can use that is readily available that should be used as the benchmark.

Mr Dodson: Can I just add to that. A coordinated approach is really what would be needed in that instance. I suppose it is a little like water. The amount of energy that is used varies year to year. It is seasonally different. We have had a couple of very mild summers. The energy usage during that time has been low. The peak has been high on the peak days. If we were to set a target that was perhaps inadvertently set during a period of time that was a mild time and then all of a sudden you had a very hot period of time and people used a lot of energy, as to whether they have achieved their target or not is a tricky thing.

The second element, just from the distributor point of view, talking about a coordinated approach, as I said, we are very much like the owners of the roads. You have other players who are involved in that. You have the car sales companies and the petrol companies. The petrol companies in this instance are the generators and the car sales companies are like the retailers of electrical products. It is a bit like if you have the owner of the roads asking for lower petrol consumption when the car sales companies are selling

inefficient cars, if you know what I mean. So in terms of setting some targets, it probably needs to be a coordination between the distributors and the retailers, but you probably also need the goods retailers involved in that as a total coordinated approach.

Mrs ATTWOOD: Good.

Mr Lee: If I could add just one point? One of the things that we hear from our customers is that they cannot see their electricity. So it is very hard for them to understand what their consumption is. Things like the in-house displays that have been provided through the ClimateSmart Home Service are playing a role in making electricity tangible and real for customers and the benchmarking approach is another way of making their consumption levels tangible and real

CHAIR: Mark has one final question for you.

Mr RYAN: Thank you very much. I did not get to mention this before about your submission. I just want to say how thorough it was. It was quite outstanding. So thanks very much for your contribution through this submission. My last question goes to investment in research and development. We heard earlier from some other people that driving energy efficiency gains through technology is often something that is too cost prohibitive for some organisations. From the point of view of driving energy efficiency with TVs, LED is the big thing that is coming that might solve everyone's nightmares when it comes to energy generation for running a TV. I was wondering whether or not you as energy companies see any virtue in investing in R&D—not necessarily yourself but contributing funds to other organisations to lower the barriers for them to undertake research and development into energy efficiency.

Mr Lee: At this point in time Ergon Energy is investing a reasonable amount of money into what you would call R&D. We probably tend to focus a lot of our effort in more the commercialised or near commercial end of products. As predominant network businesses, we are regulated by the Australian Energy Regulator now, or we will in the next 12 months.

They have requirements around us as regulated businesses to make sure that our investments are prudent and efficient. That tends to drive us towards a preference of investing in more near commercial type technologies. Having said that, Energex and ourselves are putting quite a lot of effort into demand management and with that comes energy efficiency because a more efficient air conditioner still places less demand on the system, so that is still good for us.

We are investing in partnering with companies around battery storage or storage elements for energy because we think these things will have a big advantage in us managing our network better. We do try to make sensible judgements about whether it should be us doing the work or whether we should, as you said, provide funding. I hope that goes a way towards answering your question.

Mr Dodson: Can I answer that as well? Again, we operate under a very highly regulated environment. The Queensland Audit Office looks at us, the Queensland Competition Authority looks at us; we have the Australian Energy Regulator and we operate under the Nationality Electricity Market Rules. In terms of our expenditure, every dollar that we spend is scrutinised. When we are in a high peak demand environment the majority of the funds must be directed towards maintaining that service that the community expects and that the lights are on as reliably as they are.

Having said that, when we applied five years ago for an amount of funding we were unsuccessful. We used a CSIRO report to ask for that funding for the current regulatory period. In the new regulatory period which begins on 1 July 2010 it looks like we have been successful in what is called a demand management innovation allowance, which is $5 million for Energex and $5 million for Ergon over a five-year period. Ergon and Energex have agreed to jointly pool that funding to avoid duplication of effort. In addition to that we have made a significant submission to the Australian Energy Regulator for other innovative measures along similar lines to what we were talking about around air conditioning, peak demand, cost reflectivity, those sorts of things. We have made those submissions to the Australian Energy Regulator.

Mr RYAN: Thank you for the response. It gives me a little bit of context. The restrictions I find quite instructive as well because that limits, of course, a lot of what you can do from an investment point of view. My thinking was also about a story that was recently reported in the *Courier-Mail* about a university professor down at UQ who is looking at carbon fuel cells. He has got such a small grant it is going to take him 10 years to get it up to scratch. It would be interesting to see whether or not we could look at restrictions on the energy companies to ensure that you are able to invest in some of those more speculative technologies to ensure that those technologies are able to come online a little bit more quickly because 10 years to get something up to scratch is a long time and often it is just an amount money that is needed to speed things along. It is an interesting perspective that you highlight with your restrictions.

Mr DOWLING: In the old days you used to hear anecdotally that in the bottom end of Redlands a lot of farmers were outside the grid and were forced to agree to certain consumptions before SEQEB, I suspect it was back then, would roll out the service. Does the practice still occur within the electrical industry that, if someone is a long way off line, before you will entertain them they must undertake to use a gazillion kilowatts of power or an unreasonably high level of power warming the chickens at night or lighting the strawberries or air conditioning the shearing sheds and things of that nature? Does that practice still happen or have we moved beyond that? Or is it just that you need a return on your

investment? Earlier you touched on that it is an expensive proposition to roll out infrastructure and in order for that to have a payback period maybe that is what is required. I just wondered if those practices were still in vogue.

Mr Dodson: I think very broadly speaking you will find, and I am happy for Mark to intervene here, that the electricity network in the year 2009-10 goes past nearly every customer's door in Queensland. What you will find today is if you have a customer, probably more in Ergon's area, with a property boundary a long way from where the house is then quite often there is a large cost the customer has to incur to get electricity from where the connection point is—it could be 500 metres or a kilometre—into the customer's property. If the customer does not have an alternate means of constructing it and has to approach Energex or Ergon, the construction costs, as I mentioned before, are $2 million a megawatt. It does become expensive.

I am going to use an example here but I am by no means referring to it in a negative sort of way. You might have heard of the Ripley Valley development that was to happen. In that development we are looking at how we can supply energy to a completely new area. There are no electricity substations there and in 10 years time there could be as many as 10 substations in that area. So we will enter into an arrangement with the developer for those substations to be there. There will be a capital contribution that is standard for developments of that nature, particularly when the developers these days will be looking for the power to go underground because of the aesthetics customers in new estates look for. However, you then ask the question: why could we not reduce electricity consumption in that area by having gas? Unfortunately, the model for gas does not work the same way in that there is a large cost for the headworks to come in. So as a result it looks at this point in time that the economics are not there for the gas company to be able to provide gas into that estate. If we were to look at a lower energy balance you would have to say that if there was some balancing of gas and electricity you would have a far better outcome for the community in the long run, but the economic reality of it is that the headworks of getting a large pipeline into there—the economics may never stack up.

Mr DOWLING: Do you guys deal in gas as well as electricity?

Mr Dodson: No.

Mr DOWLING: I am wondering about the rationale behind tank farms, but we are getting out of the scope of this committee and out of your area of expertise.

Mr Lee: I emphasise that this is not my area of expertise, but I suspect that that anecdotal story you gave—my understanding very broadly is that we have some sort of formula that works out a total cost of an extension to a customer, particularly in rural areas. There will be a certain amount that will be regarded as a contribution from Ergon Energy simply because there is a prospect down the track that other customers may wish to connect to that. We take some of that on as a shared asset and then we ask for a contribution from the customer requesting a supply extension. In some instances two or three customers, or more, might have to effectively join together to make it more economic for them.

Those minimum consumption levels you have seen are probably, from what I understand, a minimum charge in terms of dollars but have been then turned around and expressed in terms of kilowatt hours. That allows them to at least go some way towards paying it with their consumption as opposed to having to make a separate payment. It is obviously something that, with Ergon Energy's expressed targets in terms of reducing our own carbon footprint and those sorts of things, over time we will be looking at to see to what extent they are consistent with a low-carbon environment.

Mr Easton: I think what you are referring to is what historically was a revenue guarantee. Because of the cost of connection we are assuming as a minimum we will have a guaranteed revenue out of you. Irrespective then of what a customer consumed there was that minimum payment. My understanding is that revenue guarantees are no longer applied.

CHAIR: That was a very good way of ending it. I offer my sincere congratulations not only on your presentation today but on your submission. We are very grateful for your time. We appreciate that you are very busy. That brings us to the close of our inquiry today. I thank the panel here: Julie, Peter, Mark and Jeff for their efforts today. On behalf of the committee I thank the Hansard staff, and particularly my research director, Rob Hansen, and principal research officer, Rachelle Stacey. They have put in a huge amount of effort to ensure that the committee ran smoothly today and very successfully, I believe.

The transcript of today's hearing will be available on our website as soon as possible. If you would like a copy of our final report please contact Rob or Rachelle and they will be more than happy to provide that. We are grateful for your time and we would be very happy for you to keep us informed of any new advances or anything else that you think that we might be able to help with in the near future. We will be bringing down a report to the parliament in November, hopefully with some recommendations from today's inquiry and our public forums that we have had, and hopefully the government will take them seriously and embrace them. Thank you very much for your time.

Committee adjourned at 2.26 pm