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ENVIRONMENT, COMMUNICATIONS AND THE ARTS
REFERENCES COMMITTEE

Reference: Energy Efficient Homes Package

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SENATE ENVIRONMENT, COMMUNICATIONS AND THE ARTS

REFERENCES COMMITTEE

Wednesday, 17 February 2010

Members: Senator Fisher (*Chair*), Senator McEwen (*Deputy Chair*), Senators Boswell, Ludlam, Troeth and Wortley

Participating members: Senators Abetz, Adams, Back, Barnett, Bernardi, Bilyk, Birmingham, Mark Bishop, Boyce, Brandis, Bob Brown, Carol Brown, Bushby, Cameron, Cash, Colbeck, Jacinta Collins, Coonan, Cormann, Crossin, Eggleston, Farrell, Feeney, Ferguson, Fielding, Fierravanti-Wells, Fifield, Forshaw, Furner, Hanson-Young, Heffernan, Humphries, Hurley, Hutchins, Johnston, Joyce, Kroger, Lundy, Ian Macdonald, McGauran, McLucas, Marshall, Mason, Milne, Minchin, Moore, Nash, O'Brien, Parry, Payne, Polley, Pratt, Ronaldson, Ryan, Scullion, Siewert, Sterle, Trood, Williams and Xenophon

Senators in attendance: Senators Barnett, Birmingham, Fielding, Fisher, McEwen, Troeth and Wortley

Terms of reference for the inquiry:

To inquire into and report on:

1. The Federal Government's Energy Efficient Homes Package (ceiling insulation), with particular reference to:
 - i. the level of ceiling and wall insulation in Australian residences, state by state, prior to the announcement of the Energy Efficient Homes Package and the adequacy of the Building Code to ensure comprehensive roll out in future.
 - ii. the administration of the program from a pricing, probity and efficiency perspective, including:
 - A. the basis on which the Government determined the size of the rebate for ceiling insulation;
 - B. regulation of quoting and installation practices;
 - C. protection against rorting and abuse of the rebate;
 - D. the impact of the program in pushing up insulation prices;
 - E. the level of imported insulation to meet demand;
 - F. ensuring value for money for taxpayers;
 - G. waste, inefficiency and mismanagement within the program;
 - H. ensuring the program achieves its stated aims as part of the government's stimulus package; and
 - I. the consultation and advice received from current manufacturers regarding their ability to meet the projected demand.
 - iii. an examination of:
 - A. the employment and investment in insulation production and manufacturing resulting from the program;
 - B. what advice was provided to the Government on safety matters, particularly in relation to fire and electrocution risks and to what degree the Government acted on this advice;
 - C. the costs and benefits of extending the scheme to include other energy efficiency products including wall and floor insulation, draft stoppers and window treatments;
 - D. the costs and benefits of changing or extending the scheme to make small and medium sized businesses eligible for installations;
 - E. the extent to which imported insulation products met Australian standards and the method used to make that determination; and
 - F. what advice was provided to the Government on occupational health and safety matters, particularly in relation to training for installers; including:
 - i. to what degree the Government acted on this advice; and
 - ii. identification and examination of fires and electrical incidents resulting from the Government's Home Insulation Program.
 - iv. an analysis of the effectiveness of the package as a means to improve the efficiency of homes and reduce emissions of greenhouse gases, including comparison with alternative policy measures;
2. Consideration of measures to reduce or eliminate waste and mismanagement, and to ensure value for money for the remainder of the program, noting the planned \$2.7 billion to be distributed under the program in total.

3. Other related matters.

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Committee met at 10.09 am**ARBLASTER, Mr Andrew, President, Australian Cellulose Insulation Manufacturers Association****LIASKOS, Mr Jim, Executive Committee Member, Polyester Insulation Manufacturers Association of Australia****ZUZUL, Mr Tino, Director, Martini Industries Pty Ltd; and Executive Committee Member, Polyester Insulation Manufacturers Association of Australia**

CHAIR (Senator Fisher)—Welcome one and all. The proceedings today are public and any evidence given by witnesses is subject to parliamentary privilege. If at any stage anyone giving evidence wishes to give evidence in private—we call it in camera—you are at liberty to request to do so and the committee will consider your request. As I say, evidence given today is protected by parliamentary privilege. It is an offence and, indeed, potentially in contempt of the Senate for a third party to attempt to interfere with evidence given by a witness, as it is, indeed, for a witness to attempt to mislead the committee itself. So there's the formalities. We welcome to the table the Australian Cellulose Insulation Manufacturers Association, together with the Polyester Insulation Manufacturers Association of Australia. Each of your organisations has lodged a submission. Do you wish to amend or change any aspect of the submission?

Mr Arblaster—No.

CHAIR—Then I invite you to make a brief opening statement. It is up to you whether you will do one each. Then we will proceed to ask you questions.

Mr Liaskos—I would certainly like to make a statement.

CHAIR—Please do. Mr Arblaster, why don't you go first?

Mr Arblaster—Established in 1974, ACIMA represents 54 manufacturers and installer insulation companies who, in the pre-HIP period, installed around 25 per cent of Australia's ceiling insulation market. However, that has reduced to around 12 per cent because a lot of the new entrants into the market feel the equipment cost to put in cellulose is much higher. We have about 1,500 employees currently employed under the program by our 54 members. ACIMA has always had an installer protocol, and the basis of cellulose is that it eliminates the common problem with batt-type products, which can be difficult to fit. Cellulose also maintains the world's leading insulation product lifecycle performance from cradle to grave, as it is manufactured from recycled paper waste and a fire retardant.

In addition to my role as President of ACIMA I am the general manager of EnvirofleX, a manufacturer and installer of insulation. We have been installing insulation in Victoria since 1966 and have been a registered installer throughout the life of the Home Insulation Program, and we continue to install products in Victoria. As Australia's largest and most experienced manufacturer and installer organisation, our association was well aware of the inherent operational pitfalls facing the HIP rollout and accordingly developed its own strict installation protocol for its members. We have been an active participant in the industry consultation.

ACIMA strongly believes that the Home Insulation Program has formally established a long-overdue starting point for addressing initially the poor energy efficiency performance of Australia's 2.7 million dwellings that do not have ceiling insulation. It is fair to say that, due to the short time frame that DEEWR had and the scope to deliver the whole program, there were problems initially. The program has, in the last year, delivered more than 14 years of normal retrofit insulation. DEEWR has successfully managed to get the program on track and has been able to resolve the regulatory issues and enter into industry issues in the 10 months since the program was launched.

This includes the development of a national insulation installer training course and the long-overdue review of the substantial fire risks and energy-efficiency degradation caused by Australia's vented, recessed ceiling downlights. There are over one million homes with downlights reducing the efficiency of all ceiling insulation. Minister Garrett and the staff are to be highly commended for overhauling the long-standing, internally divided insulation industry sector and preparing it for what many in the industry believe will be the biggest expansion in insulation history.

In our submission we brought senators' attention to the clip of the US President, who was talking about the need for US homes to be improved in the same way as Australia's homes have been improved. In fact, President Obama, flanked by boxes of cellulose insulation, says, 'Insulation is sexy stuff.' The US housing stock is considerably more energy efficient than the Australian stock.

Currently, more than one million homes have been insulated and on a daily basis I receive comments back from my customers who say they did not believe how their homes could be improved so much just by ceiling insulation. They report better health, reduced energy costs and a greater state of wellbeing.

ACIMA has presented in our submission the belief that the program should be continued. Following the finish of the program we believe that we should move on to undertaking a program of improving the insulation in the walls. This should continue until 2020. This can be done by undertaking air-tightness testing of the houses and then retrofitting the walls of Australia's houses. We have already commenced discussions on our draft submission with other major insulation companies and are seeking their input.

Mr Liaskos—PIMAA has always supported the government's initiative to introduce a retrospective insulation scheme. Such a scheme has significant benefits for the householder through reduced energy cost and usage—given this climate of rising energy costs that is even more important moving forward—increased value of housing that has insulation installed compared to housing that does not have insulation; and increased personal comfort for the dweller as well as the potential for reduced mortality through heat stress, particularly in the aged.

There are significant benefits for the economy as well, through increased investment in employment and training, increased investment in long-term productive capacity, and a reduction in demand based pressures to build more power stations, which is also quite important. For our environment the benefit is in reduced greenhouse gases. According to a global study conducted by McKinsey and Company and published in 2007, insulation is the lowest-cost

greenhouse gas abatement measure possible, and actually generates a net positive economic benefit for those countries that have buildings that are properly insulated.

This should have been an excellent use of taxpayer funds and a real benefit to the nation. PIMAA believes that the introduction was rushed and needed greater consultation, both with the industry and unions, to maximise the benefits of the scheme and to allow the program to really deliver on the government's objectives. There needs to be a more rigorous verification scheme to ensure that all materials used will deliver the mandated insulation performance levels and guard against the use of inferior materials, which will result in unnecessarily high energy bills for the householder.

Concern has also been raised with regard to the health risk associated with some materials. Rather than accept that they are okay until it is proved that that is not the case, we believe that the onus needs to be placed on suppliers to verifiably prove that their products pose no risk and are safe.

The practice of installation looks easy, just like ballroom dancing until you actually get out there on the floor. For installers there are rules that must be followed. There are Australian standards for batts, in particular, AS3999-1972. Installers must understand both the materials and the roof structures that they are installing the product into. There are hazards and risks to the householder, as well as to the structure of the house that need to be considered, and not least are the occupational health and safety concerns that need to be taken into account in roof spaces that are obviously confined. They can be very hot, they can be contaminated and they can have electrical and plumbing installations that need to be catered for. Working at heights on ladders and scaffolds is another consideration.

The rollout of the scheme has encouraged a lot of new entrants, some of whom have seen the opportunity to make a lot of easy money in a short period of time by cutting corners and not delivering value for money to the householder or the taxpayer by using low-cost and inferior materials, as well as slipshod installation and sharp business practices. There was even more pressure put on margins by the reduction in the rebate in November, which came without notice to the industry. This created a flight to the lowest cost and, in many cases, inferior materials by many installers without much regard to the long-term benefits to the householder or to the industry.

A number of long-term reputable installers have left the industry rather than cheat to compete, whilst others struggle to survive. Use of inferior materials and unfair competition also places Australian manufacturers at a severe disadvantage. As Australian manufacturers we live and work here. Our warranties mean something. We value our reputation and our customers, and we want to be here long after this program is over.

In regard to polyester insulation, it is easy to handle and does not require personal protective equipment to install. It is not made with any added chemicals. It is very long lasting. It does not require a top-up and is the only insulation material which is recyclable, and as result we believe it is a superior insulating material. In anticipation of these very strong benefits and the scheme remaining unchanged as was announced, many in the polyester insulation industry invested heavily in recruiting and training new employees, which was one of the objectives of the program, and they invested in raw materials in order to supply the market due to the expected

demand. They also invested heavily in new production equipment. When asked, DEWHA did not foreshadow any changes and so this investment proceeded.

As a result of the November cut and the hype around free insulation, there was a flight to low-cost and, in many cases, inferior imports which has meant redundancies, idle new equipment and the need to find the cash to fund large stockpiles of slow-moving materials. Meanwhile, Australian taxpayers' funds are going offshore to stimulate manufacturing industries in those countries exporting to Australia. I agree with Andrew: insulation is sexy. The snapshot of President Obama was really interesting, especially where he said that the Australian program was fantastic because it was creating all these American jobs.

The various concerns that have been raised are damaging to the program, to those who make their livelihood out of delivering a valuable service to householders and it will compromise the fulfilment of the program's objectives. These concerns require quick and decisive action to redress. PIMAA has nominated a number of potential solutions which include: supporting local manufacturing industry with government purchasing policies that recognise the positive impact of increased Australian manufacturing employment; establishing a register of acceptable sources of supply which objectively and consistently meet or exceed the mandated requirements, as outlined in the Building Code of Australia and tested to Australian Standards; recognising and mandating appropriate skills and valuing the long-term experience of installers; requiring the ACCC or another appropriate body to police and rapidly address noncompliance—I am not sure where the ACCC are these days.

The solutions also include recognising the lifecycle benefit of different materials used as insulating media and adopting a sliding scale rebate, as is the case in the Solar Hot Water Rebate scheme, and considering the introduction of a co-payment with the scheme requiring, say, the householder to pay the first 25 per cent of the rebate. The benefit of that is that it reduces the hype about free insulation and gets some buy-in from the householder about what is actually going into their ceiling. We think there is a by-product in that it will extend the life of this program, so it can insulate more houses than the current budget allows.

Further solutions include: promoting the long-term economic and environmental benefits of this scheme, not just the free insulation aspect; establishing a consultative process to actively engage with industry, unions and consumer stakeholders to ensure the maximum value is derived from the \$2.4 billion program for the Australian taxpayer—which is a fair bit of money—and acting expeditiously, rather than meandering on, as seems to be the case right now.

Senator BIRMINGHAM—Gentlemen, thanks very much for your time today and for your opening statements. I think everybody is happy to accept that insulation and home energy efficiency is sexy, but the issues we want to get to the bottom of today are whether there has been a wise use of taxpayers' money, whether billions have potentially been wasted and, importantly, whether safety has been compromised in the way this program has been implemented. I will start off just by looking at some of the risks. Mr Arblaster, I think you spoke of operational pitfalls. Mr Liaskos, you spoke about risks. Obviously, your industry sectors and your associations were well aware that there are risks in how insulation is installed. Can you just quickly take us through what those risks are and what the consequences are that you have seen from them, please.

Mr Arblaster—The major risk is downlights. If insulation is put over the top of downlights—no matter what insulation it is—and the appropriate covers are not put on downlights, there will be fires. Then there is the risk to the installers of going into a roof space. Roof spaces are confined areas. People should be trained in how to approach a roof space and getting in and out of a roof space. There is now a training program where every installer who goes into a roof must be trained. That commenced on 12 February. Prior to that, the installer only had to be someone who was supervised by a trained person. Every person now must do a two-day training course before going into a roof.

Mr Liaskos—I agree that there are significant risks in working in a confined space, particularly with older houses. There are also other risks. There are the risks associated with the sorts of materials that we used at the turn of the previous century. There is exposed wiring in many old houses, before the introduction of plastic sheathing—we are going back a long time. So there are a number of occupational health and safety risks. There are also risks associated with incorrect installation. Insulation looks really easy to put down and fit, but the problem of thermal bridging is considerable. If it is not correctly installed—and it does not take a lot to incorrectly install insulation—you will get zero benefit out of the insulation material you are putting into your ceiling. There is also the potential for inexperienced people to create maybe not long-term but medium-term structural problems in the roof space. So, whilst this has not been seen as a trade, it certainly is an area where experience is valued in getting a good job done.

Senator BIRMINGHAM—Experience, some level of training and some knowledge of what you are doing is obviously very important. Gentlemen, you all spoke about consultation to some extent. Mr Arblaster, you indicated that your association had participated in consultation with the government. Mr Liaskos, your submission—though very critical of the level of industry consultation, I note—does say that you participated in a number of industry roundtable meetings with the department. Could you please tell me when you were first, as associations with expertise in this area, asked to involve yourselves in this consultation.

Mr Arblaster—I believe it was almost immediately after the announcement of the program.

Senator BIRMINGHAM—So back in February 2009?

Mr Arblaster—In February 2009. It has been ongoing on about a two-monthly program.

Senator BIRMINGHAM—That is an industry roundtable type of consultation?

Mr Arblaster—An industry roundtable consultation.

Senator BIRMINGHAM—On a two-monthly basis.

Mr Liaskos—We were also involved in the EEHP meetings. They commenced in February-March—I am not sure of the exact date—and basically have transpired every two to three months since. We have also met with the minister several times ourselves as well, outlaying our issues that we have with the scheme.

Senator BIRMINGHAM—Mr Arblaster, have you met with the minister about the scheme?

Mr Arblaster—Our association has not met with the minister.

Senator BIRMINGHAM—At these roundtable meetings that commenced in February last year, have you as associations been raising the risks and concerns that you have just highlighted to us?

Mr Arblaster—Yes, we have.

Mr Liaskos—Likewise, yes.

Senator BIRMINGHAM—You started raising them from the very first meetings in February last year?

Mr Zuzul—No, I think most of the issues concerning polyester manufacturers transpired from November on. On some of our key issues we spoke to the minister directly on 12 October—that was the last EEHP meeting prior to the rebate reduction. We asked the minister a direct question: will the scheme change and will it see its course? According to his answer, we then proceeded to invest heavily, as Jim mentioned in his introduction, and as a result have suffered significantly due to the lack of business since the scheme's reduction in rebate.

Mr Liaskos—I think you will find that individual companies have probably also made contact with the minister and his department—we certainly have, outside of the PIMA Association—raising concerns about how a good scheme should be conducted.

Senator BIRMINGHAM—Mr Arblaster, can you respond in terms of when you started raising concerns about the skills of those installing or safety risks?

Mr Arblaster—Yes, and the department then started bringing forward manuals on how to install and started getting a program together to get installers trained.

Senator BIRMINGHAM—Sorry, if we can just step back a moment there: as an association participating in the roundtables, when were you starting to say, 'There are issues around training, there are issues around the competency of installers, there are issues around safety that need to be part of how this program is implemented'?

Mr Arblaster—That was at the first meeting, when basically our association was saying that to be an installer you need to have a certain amount of expertise and training. For instance, we would not put our employees in the roof unless they had had a few months of work with us and training.

Senator BIRMINGHAM—A few months of supervised work?

Mr Arblaster—Supervised work, yes. But one of the aims of this program was to create employment and in creating employment the objective was to develop a program where people could be trained quickly—under the training scheme, two days—and then allowed to move into insulation installing.

Senator BIRMINGHAM—When did the training scheme take effect?

Mr Arblaster—It is mandated for both people in the roof, but for it to be supervised was around August last year. I would have to check my records on that.

Senator BIRMINGHAM—Around August. That is fine. Do you feel that the rush to get this scheme implemented, the rush to create jobs, compromised safety and compromised the standards used by organisations such as yours where people would undergo a couple of months of supervised training and put safety at risk?

Mr Arblaster—Yes, that has happened, but the department have recognise that and I think with the 12 February changes, that everybody who goes into the roof must have had the training, they are starting to address that issue.

Senator BIRMINGHAM—Mr Liaskos or Mr Zuzul, do you have a response?

Mr Liaskos—We are manufacturers of the product. We do not actually get involved in the ceiling space so we can really only go off anecdotal evidence of people and issues that we have seen.

Senator McEWEN—Thank you very much, gentlemen, for your submissions and for your evidence. I will just going back to a couple of questions that Senator Birmingham asked about safety. Can I just clarify that every time an installation is proposed for a house now, there has to be a risk assessment of the roof space. Is that correct?

Mr Arblaster—Yes there does

Senator McEWEN—Okay. And that deals with the issues of covers for downlights et cetera?

Mr Arblaster—The risk assessment is a three-page form which covers all the electrical issues and any structural issues and each of the installers who goes into the roof must tick off this form, which must be kept and filed at the end of the job. It does mention downlights but does not then proceed to how you are going to handle those downlights.

Senator McEWEN—But that risk assessment of the roof space did not happen prior to the introduction of this program?

Mr Arblaster—No. As far as I can remember, the risk assessment came in in December. Prior to that there was no risk assessment. Our business had its own risk assessment, which was done by the installers before they went in, but now it is a mandated issue that must be filed.

Senator McEWEN—With regard to the training of installers or anybody who goes into the roof space that now occurs, there was no mandatory training or requirement for competency prior to the introduction of the program. Is that correct?

Mr Arblaster—No, there was not. It was up to individual firms to undertake the training and there was no course for insulation installing.

Senator McEWEN—So that has also come into effect since the introduction of the program. You mentioned that the cellulose installation has not had such a rapid take-up as other forms of

insulation. Of the one million homes in Australia that have had insulation installed under the program, do you know what portion have used cellulose?

Mr Arblaster—Ten per cent.

Senator McEWEN—Is cellulose a more expensive option than what we know as pink batts or gold batts?

Mr Arblaster—It can be a cheaper option.

Senator McEWEN—It can be a cheaper option?

Mr Arblaster—It is a cheaper option in Victoria.

Senator McEWEN—So it is different across the states.

Mr Arblaster—Yes. It depends on the difficulty of access into the roof. For instance, in Queensland there are a lot more flat roofs, but in Victoria there are a lot more tiled roofs, so it is easier for us to get into the roof to spray insulation. In Queensland there are a lot of flat metal roofs, so it can vary across the country.

Senator McEWEN—All right. Mr Liaskos, you mentioned in your evidence that one of the things your section of the industry would like to see is rigorous verification to regulate standards of material. What happens now?

Mr Liaskos—At the urging of the industry there has been an approved register set up. But that register has, in our view, an ineffective system of verification. The Australian standard 4859.1:2002 sets out how products are to be tested and at the moment you can pretty much put any old lab's test results in there to say, 'We have done it; she's right,' and that is accepted. We do not believe that is sufficient.

Senator McEWEN—So this is the list of approved products that also did not exist before the program. Is that correct?

Mr Liaskos—That is correct.

Senator McEWEN—So we have got a list but you are saying that—

Mr Liaskos—Prior to the program, the ACCC and the Australian Greenhouse Office did an extensive survey of the Australian insulation industry some years back. They found a number of products were not compliant with the Australian standard and they took effective action. As a result of that, my belief is that, prior to this program commencing, every Australian manufacturer out there was either meeting or exceeding the Australian standard.

Senator McEWEN—You mentioned that the ACCC has taken action against polyester—

Mr Liaskos—Some years ago. That is correct.

Senator McEWEN—I think in 2007.

Mr Liaskos—That is correct.

Senator McEWEN—This question is addressed to either of you. What role do you think the Home Insulation Program has played in educating Australian householders about the value of home insulation of whatever kind?

Mr Zuzul—They place no value on it because it is free. That was our argument all along: when you are getting something for free, basically very little value is placed on it. We were looking for the government—and we have mentioned it many times to the minister himself—to adopt the New Zealand insulation scheme where the householder pays the first third of the cost. If the householder is contributing to the actual installation component they will be more discerning as to what product goes in their roof space and who installs it.

Senator McEWEN—The devil in me says that that would be an argument from an industry like yours where, to most people, cellulose is not the preferred product.

Mr Zuzul—We do not manufacture cellulose; just strictly polyester.

Senator McEWEN—As opposed to pink batts or gold batts, which most people choose?

Mr Zuzul—Because it is free.

Mr Liaskos—I do not understand your argument, Senator. At the end of the day, the current situation is it is free installation. The attitude of most people out there is: 'I'm going to hop in for my chop. The government is giving it away for free. Like other schemes, it may expire. I'd better get in there quickly, and I should be able to trust that the government has done the right job to make sure that the stuff that is going in my ceiling that is free is good stuff.' I do not think that is sufficient. I disagree with you, but that is my view.

Senator McEWEN—On the other hand, you were just saying in your evidence what amazing benefits there are of home insulation?

Mr Liaskos—Absolutely correct.

Senator McEWEN—And you said in your preamble that that reduces greenhouse gas emissions and it reduces the temperature in the household and makes the amenity of living more agreeable for people, particularly older people et cetera.

Mr Liaskos—All those things are true if it is done correctly and properly.

Mr Zuzul—And if it is a compliant product. If it is a noncompliant product, you have no benefits whatsoever.

Senator McEWEN—What evidence do you have that what is being installed in those one million homes is not a compliant product?

Mr Zuzul—We have done testing on about 20-odd products. Every product that we have tested has failed. I gave two examples to the minister. An imported fibreglass batt was taken out of a roof space. It was supposed to be an R3.5 batt; it came in at R1.47. There is a product that is on the product register list that is supposed to be R3.5 and we tested 50 packs and not one of the products were more than R1.5. So it puts us at a distinct disadvantage when we are competing against noncompliant products.

Senator McEWEN—You are saying that your sector of the industry is disadvantaged?

Mr Zuzul—Not only our sector of the industry; there has been a gross waste of taxpayers money. You can check with the fellows from ICANZ later on today but, conservatively, 30 to 40 per cent—that is my belief—of homes contain a noncompliant product that does not achieve the R-values. I am not sure what the chemical component or make-up of those products is but, in terms of R-values, they would not achieve it. Hence, there is no benefit to the 30 or 40 per cent of homes installed to date.

Senator McEWEN—That is your view. We do not have any evidence.

Mr Arblaster—Just on cellulose manufacturers, I have seen a number of imported products. I do not believe that it is 30 or 40 per cent. From what I am seeing in Victoria it would be much less. We believe that the fact it is free is a significant incentive for people taking it up. People do not have free cash to spend on insulation and they are getting the benefits of insulation installed in their house. So we would recommend that it continues as a free insulation. In most cases, when you talk to people, they say they cannot afford to put it in. We put it in and they start to get the benefits immediately.

Senator BIRMINGHAM—So the ‘free’ is driving the lowest common denominator?

Mr Arblaster—No, I do not believe so. If there were a component of it that people had to pay upfront, say, \$250 or \$300, it is still going to be the lowest common denominator to the size of the house.

Senator McEWEN—I have one more question on health and safety issues. I will address it to you, Mr Arblaster, because I understand you actually have a business that employs installers. What health and safety and other regulations or legislation applies that you need to be cognizant of for your employees?

Mr Arblaster—Obviously, we are under Victorian WorkCover, so before we send them out it is Victorian WorkCover regulations—and, again, we are just in Victoria, we are not Australia wide—and since 12 February each of those installers must have completed an installer training course. That includes working at heights, how to install and a general introduction to the construction industry. It is a two-day course. Then, as they get to site, they must fill in an occupational health and safety form before they enter the roof and they must bring that form back and we must supply it. The government will not pay us unless the installer has completed all that training. We have had to submit, for every one of our installers, the training certificates or a statutory declaration to say they had worked in our industry for over two years.

CHAIR—Gentlemen, I want to follow up on your answers to Senator McEwen when she asked about what you believed the community now thinks about the home insulation package's capacity to educate consumers about the environmental benefits of insulation. The polyester part of the table, if I can put it that way, answered, 'Well, there's no value because it is free.' But isn't it worse than that? Hasn't the program done damage to what mums and dads would think home insulation might achieve, not only because of the potential risks but because of the risks that have been realised and resulted in tragedy? Isn't it worse than 'no value because it is free'?

Mr Liaskos—I think it is worth saying that there is a stain on the insulation industry that is not deserved and should not be there. There are good, competent operators out there and I would argue very strongly that everybody should have their house insulated by a good, competent operator whose bona fides are checked out by the consumer.

CHAIR—The industry is clearly suffering, and professional operators in it may well continue to do so. But mums and dads do not differentiate, do they, between the sexy polyester, the sexy cellulose, the green batts and the yellow batts; they just think insulation? So, industry aside, what do you think mums and dads think of home insulation right now as something of benefit for the environment?

Mr Zuzul—Due to all the negative press, the value on it at the moment is probably quite minimised. In the long term, however, given the way greenhouse gases and global warming and all the other issues are happening around the world, insulation is becoming more and more a prominent term and a more important component of a building application. However, right at this moment I tend to think that the industry has been tarnished.

Mr Arblaster—I deal with customers on a daily basis. Initially we found, as with everything, that the early takers up were teachers and other educated people. As it has moved through the community there has been a lot of feedback along the lines of: 'I had it done and I have noticed the difference. My power bills are down and it is feeling better in the house.' Now we are getting the referrals coming through the community from the people we initially did. As you are probably aware, there is heaps of telemarketing and doorknocking going on at the moment. That is actually assisting our business because they are consumers who are saying, as a result of the deaths and all the other publicity, that they want someone who has been in the industry a long time, and they are coming back and giving us the opportunity to quote.

CHAIR—Thank you, gentlemen. I have one more question about the long-term benefits, and then I will ask Senator Barnett to ask some questions of you. Mr Zuzul, you mentioned the long term and the long-term benefits. Mr Liaskos, you also, in your opening statement, talked about the health effects: 'Why are we waiting? Why assume it's okay?' That is how I paraphrase what you said: 'Why are we assuming the health implications of the product being installed are okay until it's proved that it's not the case?' You have also said that the Home Insulation Program has proceeded with undue haste. It is a case of more haste, less speed and of more haste, more risk and more tragedy. Why shouldn't the program simply be stopped until all these things that you say need to be done are done? Why shouldn't the program be stopped? What is the hurry? Why keep going—in your own words, using the health risks—and assume everything is okay until it is proved that it is not the case? What is the hurry? Why should the program, for the benefit of the future and to realise the benefits of insulation for the future, not be stopped today unless and until the risks can be sorted out and the things that you say need to be done can be done?

Mr Liaskos—My view is that to stop it dead right now would cause an enormous amount of harm to the legitimate operators who have geared up their businesses to be able to cope with this program. We have seen evidence of it in the polyester insulation area, where we offer a premium product and, as a result of the rebate, those people that are just after the free insulation have gone elsewhere. We have seen the impact of that.

CHAIR—So is that bit of the industry, right now, benefiting more than it is being harmed?

Mr Liaskos—If I can speak on behalf of the industry, I think it would be a terrible thing if this industry were shut down overnight as a result of this. I am always concerned about knee-jerk reactions that stop and start without industry consultation. At the moment you have got a ball rolling. I think it is more prudent to make sure that that ball is rolling at the right speed, that the bearings are well greased and that everything is working as it should be than to put a stop to it.

CHAIR—My question is whether or not the government funded Home Insulation Program should be stopped right now. That would not stop your normal business, would it—or is your normal business now so subsumed by the Home Insulation Program that there is no other business?

Mr Liaskos—As far as the polyester insulation manufacturers are concerned, that is not the case. We make up about 10 per cent of the industry, however, and there is that whole other section of the industry. Our customers deal with our products as well as other products in the marketplace. I think there is the potential to do enormous harm to those people, who are doing the right thing and have geared up for a program.

Mr Arblaster—Most of us have a significant business in the new home market and the commercial market, so, while stopping it would damage the industry severely, I think the real problem is that—

CHAIR—Sorry—what would damage the industry severely?

Mr Arblaster—Stopping it dead at this moment with stocks and all the other factors. That will be just another problem with the industry, where things have been changing so rapidly for all of us that it is very difficult for the installers and the manufacturers to adjust to the changes in the program?

CHAIR—So, if it were to stop today, it would simply be another example of too much haste, less speed—would it?

Mr Arblaster—They are your words, not mine, but there have been significant changes that have required great adjustment to all of our businesses as new regulations and changes have come in. They could have been there at the start, which is your point, I guess.

CHAIR—There is one further thing for Mr Zuzul, and then I will pass Senator Barnett.

Mr Zuzul—To add light to your question, I guess it depends on where you sit in the scheme. But, from our perspective, rather than have the scheme stopped we would like to see it changed so that it benefits all Australian manufacturers, not just one segment of manufacturers. I think

that if it can benefit all manufacturers then there is a certain long-term benefit not only for our businesses but for employment and also for consumers.

CHAIR—On notice—that means later—could you provide the committee with your answer to this question: what would your view be if the government suspended the Home Insulation Program, not stopped it dead today but suspended it from today, pending doing exactly the things that you are suggesting the government needs to do?

Senator BARNETT—In the time available, I want to refer to the department's own submission, at page 6, where they say:

The pace and scale of the program's roll-out is unparalleled for the delivery of an energy efficiency measure in Australia.

I think that is consistent with your opening remarks, where you indicated that the pace and the speed of the rollout led to a range of pitfalls. You referred to the risks. You mentioned the fire risks, the health risks and other deficiencies in the program. Mr Zuzul, you mentioned that the program in your view was a gross waste of taxpayers' money. You mentioned that 30 to 40 per cent of homes are currently noncompliant and you said that there was no benefit to those homes. I am wondering if you could elucidate for us your views and provide evidence to support those views, because it is deeply concerning that there is such a significant proportion of homes where there is no benefit at all and where they are using, it would seem, inferior insulation material. I assume you are suggesting the material from overseas, perhaps China or the USA. Could you respond to that?

Mr Zuzul—From our experience of the products we have tested and test results we have passed on to the minister's office, we have yet to see, with the exception of two manufacturers from the States, imported product that complies in terms of R-value. I cannot answer that the formaldehyde issue because I am not an expert on that side, but in regard to the R-values everything we have tested is well under. So in terms of the benefit to the consumer, if the BCA requires an R 3.5 batt and a 1.5 batt is installed, obviously the saving on energy in that household will be considerably less than what it should be.

Senator BARNETT—So you are saying the merits of the batt are obviously significantly compromised as a result of putting in inferior insulation batts—

Mr Zuzul—Correct.

Senator BARNETT—and as a result it is obviously not achieving the objectives of the program and is a waste of taxpayers' money.

Mr Zuzul—Minister Garrett has mentioned to us several times that the objectives of the scheme from his perspective have been met, and it is a stimulus package to increase employment et cetera. However, because it is in the environmental portfolio I certainly believe that there is a requirement to make sure that it meets the BCA requirements. If it is an environmental issue and if it is going to be saving energy long term, it needs to meet the BCA requirements. So, if it is clearly not meeting the BCA requirements in terms of R-values, then certainly the benefit to the community and taxpayers is wasted.

Senator BARNETT—Sure, I can understand that. It makes absolute sense. You said you had done your own testing. Could I ask: have the government done any testing, to your knowledge? You said you had done your testing and you had passed the information on to the government, so the second part of that question is: when did you pass that information on to the government and what sort of response did you receive?

Mr Zuzul—PIMA have two R-value test rigs and we have been using those test rigs to test product. The last time we submitted a test was to Aaron Hughes on 3 February, and before that we met with Minister Garrett on 28 January, I believe. We gave him examples then, or highlighted examples where product was noncompliant. To go and test another product is quite expensive and it is not up to us to be the policemen for the government. So when we highlighted these examples to the government it was met with a nonchalant attitude, in that they were not going to be the police in this scenario. It was up to the householder. It was a deal between the householder and the installer. If the householder was not happy with the level of benefit provided by the insulation, they could go to fair trade. In all honesty, Mr and Mrs Smith would have no idea if something works or it does not work. Several months down the track, the people that we have been talking to have derived no benefit from the insulation that was installed, and most of it is imported fibreglass.

Senator BARNETT—So you are really saying that the government has taken a hands-off approach, based on the advice you have passed on to them on the results, which are pretty conclusive: that they are not meeting compliance standards. And they are basically saying that it is up to the householder and the installer to sort it out.

Mr Zuzul—Yes. I see that they do have their share of concern; however, it is slow to come to fruition.

Senator BARNETT—Did you pass on any of those concerns prior to your meetings of 3 February and 28 January? Had you had consultations? Had you referred to them your concerns about the risks about the program—whether of fire, to health or other related risks?

Mr Zuzul—All throughout the EEHP meetings, from about June onwards, we saw a massive influx of imported raw material, and not just PIMA but several people here mentioned at those EEHP meetings that noncompliant insulation was a concern. From our company's point of view, we wrote letters to Prime Minister Rudd, Treasurer Swan, Minister Garrett and several others about our concerns about not only the impact of the reduction of the rebate on our companies but also imported insulation and, to date, I have not had a reply from anyone.

Senator BARNETT—When did you write those letters?

Mr Zuzul—On 13 November.

Senator BARNETT—Could you take on notice to more fully respond to Senator Birmingham's question about the times and dates of those letters to the different ministers and government department officials? Could you take that on notice and let us know the details of when those letters went out and when they came back again?

Mr Zuzul—I have a copy of one here.

Senator BARNETT—If you are happy to table that, that would be helpful. Are you happy to make that available to the committee?

Mr Zuzul—Yes.

Senator BARNETT—And are you happy to take that other question on notice and get back to us?

Mr Zuzul—Yes.

Senator BARNETT—Finally, you said that there were two companies, as far as you are aware, that were compliant—I think from the US—but that basically all the others you tested from overseas—I assume from China and other places around the world—were noncompliant. Can you confirm that? That is, frankly, very significant because you are suggesting that 30 to 40 per cent of the homes in Australia have insulation which is noncompliant.

Mr Zuzul—We can provide more data on the products we have tested, and we will happily submit that.

Senator BARNETT—If you would.

Mr Zuzul—The other concern for us in terms of noncompliance is the approved products list on the government register. Many of those test results are not from NATA-approved laboratories—or they might be NATA-approved to test widgets but they are not NATA-approved to test to AS4859.1—yet they are on the products preferred list.

Senator BARNETT—As to the effect of noncompliance: you are saying that the consequences of that are obviously risks, whether to health, of fire or of lack of energy efficiency standards and so on—is that accurate?

Mr Zuzul—Depending on the product—and I can only speak on behalf of polyester in terms of its, minimal, risks. But with fibreglass, cellulose et cetera, the risks would be dependent on how it is installed. As we do not install and do not govern that, it would be hard for me to give you a qualified—

Senator BARNETT—All right, but I just referred to the opening statement, and I think Mr Arblaster said that one million homes in Australia have downlights. So, if the insulation was improperly installed around the downlights, there would be a risk of, I assume, fire?

Mr Zuzul—Yes, there would be. In a report emailed to me from the New South Wales Fire Brigades I read that there were something like 75 fires this financial year in comparison to 25 the last—those figures might not be accurate but it was around that—and all of those fires were caused by fibreglass and cellulose on downlights; there were none in terms of polyester.

Senator BARNETT—Thanks very much for that.

Senator WORTLEY—Could I just go back to those figures you mentioned about fires?

Mr Zuzul—I can forward the email. The figures were in the vicinity of: 12 months before the scheme started, there were 25 home fires or around that mark, and in the 12 months preceding that there were in the vicinity of 75.

Senator WORTLEY—And that is with an additional one million homes having been insulated?

Mr Zuzul—Yes.

Senator WORTLEY—So you have actually more homes insulated?

Mr Zuzul—Not in New South Wales.

Senator WORTLEY—You are talking specifically about New South Wales?

Mr Zuzul—Yes.

Senator WORTLEY—So how many homes would have been insulated under the program in New South Wales?

Mr Arblaster—Around 400,000.

Senator WORTLEY—So that is an additional 400,000 homes that have been insulated. Okay. The government has put in place a list of approved products, designating products that have been tested in compliance with Australian standards as eligible under the system. You talked about the R-value of some of the products that are on that list. Can you explain what the R-value is?

Mr Zuzul—The R-value is thermal resistance. The higher the R-value, obviously, in layman's talk the better the resistance is to heat flow. For example, BCA requires R3 in Brisbane and R3.5 in Sydney. R-value generally is governed by the density of product and the loft. If your loft is decreased, then you need a high density to achieve that R-value.

Senator WORTLEY—To clarify, let us talk about density. I will use my hands to demonstrate. The thickness of the product may be a certain level for R2 and another level for R3.5.

Mr Zuzul—Correct. For example, just to pick a density, for an R2.5 it might be 1,500 grams per square metre with about 150 millimetres loft. For an R3.5, you would have, say, 2,000 GSM and a 200 millimetre loft.

Senator WORTLEY—Okay. So do the products that you have tested come in different densities?

Mr Zuzul—Correct.

Senator WORTLEY—Did you take them from homes where the product had actually been put into the home?

Mr Zuzul—The last sample we tested, I personally took it from a home. It was installed in St Andrews in New South Wales in early December. The person who lived at the house as a Mrs Poole. Basically, it was an imported fibreglass batt. I would have expected that over the summer period it would re-loft to 180 millimetres—in that area—and unfortunately it came in at 63 millimetres.

Senator WORTLEY—So the product is available but the installer did not put the proper R-valued product into the home.

Mr Zuzul—The installer is under the impression that he is purchasing an R3.5 pack. The installer should know that if it is 63 millimetres it is not going to achieve the R-value.

Senator WORTLEY—Did you check into that? Did you have evidence that it actually had 3.5 on the pack or could it have been the installer's error to install that R-valued product rather than the product not being of the required R-value for that particular area? Certainly the consumer, I assume, thought that they had the right rating.

Mr Zuzul—The consumer, based on what they had signed off on, assumed it was R3.5 I did not see any packs there. However, to answer your question, it would be difficult for me to believe that the installer was in error, because in this instance there was a 600 millimetre gap and they had installed a 430 millimetre batt, so there was a 60 millimetre gap on both sides of the product, on top of it being an R1.5 instead of an R3.5.

Senator WORTLEY—So basically the situation would be that it is up to the installer to ensure that they are installing the correct R-value. So you do not have evidence as to whether or not the product that was purchased was purchased as a 3.5 value product. I understand what you are saying about the fact that the installer may have signed off on it.

Mr Zuzul—I do not have evidence. But R3.5 is called for in Sydney, so you would have to assume that the installer would have known what he was purchasing.

Senator WORTLEY—So you are assuming that the installer purchased a 3.5 and that it did not in fact meet that requirement. But in fact it could be that the installer installed a product with the wrong R-value.

Mr Arblaster—It could happen. What the government has now done means that as installers we now have to leave the customer with part of the batt and part of the packet, as well as leaving part of the packet in the roof. This means that when the government inspectors come they can check that we have put in the right rating. They can then track it back to the supplier or the installer.

Senator WORTLEY—So the procedures that the government has put in place address the issue from either the product or the installer's point of view in relation to the R-value?

Mr Arblaster—We now have the established list—people can argue about how the established list should be put together—so if it is not on the list you cannot install it. As you install, you have to cut the label off the packet, put it on the customer's details and also leave it

in the roof so, when the inspector comes—and I had be been inspected; there is a strong inspection regime—

Senator BARNETT—There is now; there has not always been.

Mr Arblaster—There is now, yes.

Mr Liaskos—Since February.

Mr Arblaster—Yes, since February there has been an inspection regime. That includes the government ringing the house owner to confirm we have not put it into a fictitious house or whatever and also physically checking in houses. They will now be able to follow the trail of who supplied the material and undertake that testing if it is required.

CHAIR—Thank you, gentlemen. Senator Wortley, you may ask one further question and then I am going to ask Senator Fielding to ask some questions.

Senator WORTLEY—Thank you, I had a few more questions but I will limit myself to one. The industry believes it is experiencing lower uptake than prior to the Home Insulation Program. Is that correct?

Mr Zuzul—PIMAA is representative of several manufactures. I can talk about our business: we were far better off before the scheme started than we are now.

Senator WORTLEY—Would you be able to take that on notice and provide the committee with evidence of that?

Mr Zuzul—If need be, yes.

Senator WORTLEY—Thank you.

Senator FIELDING—Since 12 February we have had the right training in place to make sure that safety is taken care of, and you are happy with that. The program started back in February 2009, so it has taken a full year to get to where we need to be to make sure people's lives are safe, homes are safe and installers are safe. Is that right?

Mr Arblaster—We have been moving down an iterative process but, yes, it has taken a full year—

Senator FIELDING—The answer is yes, it has taken a full year to get there.

Mr Arblaster—The answer is yes. It has taken a full year from a base where there was, as we mentioned before, no training scheme, to developing a training scheme and then introducing, as it moved forward, supervised trainers. We are now at the stage where everybody who goes into a roof must have completed all that training.

Senator FIELDING—Okay, so the safety issues have been taken care of a year later than when they were needed. My second question goes to this issue of a 30 to 40 per cent wastage—

that is in your view. That is an enormous waste of Australian taxpayers' money. This is a significant claim, if it is anywhere near true—even 15 per cent is outrageous. Has that been fixed?

Mr Zuzul—No.

Senator FIELDING—It has not been fixed?

Mr Zuzul—Products are still being sold in the marketplace.

Senator FIELDING—It is outrageous to think that a year later we still have product and wastage at that level.

Mr Zuzul—This flyer was presented to Jim on Monday. It advertises for \$3 per square metre, imported from the USA, genuine Pink Batts USA made by Owens Corning. This product is not on the government website, although it does comply with Australian standards—

Senator FIELDING—No wonder President Obama is standing there, happy as Larry—

Interjector—He thinks it is sexy!

Senator FIELDING—He thinks it is sexy we are getting shit product!

Mr Zuzul—They have sold out.

Senator BARNETT—Through you, chair, can that document be tabled?

Mr Zuzul—Yes. We rang up this morning just before this meeting and found they have sold out of product in Melbourne, yet it is not on the products list.

Senator FIELDING—You might want to take this question on notice. At these roundtable chinwags, were minutes taken? Did you get a copy of those minutes?

Mr Arblaster—Up until this last meeting there have been no minutes—

Senator FIELDING—No minutes from these meetings?

Mr Arblaster—They have not been circulated.

Senator FIELDING—There were these important meetings, involving billions of dollars of taxpayers' money within the industry, and no minutes were taken and distributed?

Mr Arblaster—Not up until the last meeting, which was in February.

Senator FIELDING—Did any of you folks take your own minutes, which you could table for this committee? Do you want to take that on notice?

Mr Arblaster—We will take that on notice.

Mr Liaskos—I have only been to the one roundtable, which was the one in February. I received the minutes and responded by noting a number of errors. I am assuming others are doing exactly the same thing. I am yet to see the final set.

Senator TROETH—Mr Arblaster, in your comments to start with, you referred to a ‘longstanding divided insulation industry sector’. What are the divisions? Do they still exist? What should be done about it?

Mr Arblaster—Some of those have been resolved. Basically, it relates to the standards of both installation and the way we should test products that comply. Industry representatives have been to many meetings where they have not being able to resolve the final words.

Senator TROETH—So you are talking about higher standards and lower standards, are you?

Mr Arblaster—Higher standards, yes.

Senator TROETH—And lower standards.

Mr Arblaster—Particularly in relation to downlights.

Senator TROETH—Do you think that insulation systems other than fibreglass batts are being promoted appropriate to their merits in the present program?

Mr Arblaster—It is up to the manufactures of all of those products to promote them. The government allocated money to promoting the insulation program, but that was taken out in the first cut of the program—quite wisely, because the industry was doing promotion for the government anyway. We would say that, for any product, it is up to the manufacturers to promote their benefits.

Senator TROETH—But it has to basically be sold on its benefits. Does wool insulation still feature in this program?

Mr Arblaster—Wool is a product that is available. There are very few manufacturers of wool left around. It is a cost issue with wool at the moment.

Senator TROETH—So do you think the present program is biased towards insulation with the lowest upfront cost, regardless of long-term costs and benefits of the different systems?

Mr Liaskos—Yes, without a doubt.

Senator TROETH—Mr Arblaster?

Mr Arblaster—I believe most houses can be insulated with all types of products under the \$1,200. I also install polyester insulation. Generally, as a product you can sell the benefits of polyester and people are prepared to pay more.

CHAIR—Thank you, Senator Troeth. Senator Wortley is seeking a very quick clarification—if it is not quick, I will make it quick, I’m afraid!

Senator WORTLEY—Thank you, Chair. I just want to know: prior to the government-introduced training programs that have been put in place, what mandatory training programs were there for insulation installers?

Mr Arblaster—Those would be the programs that are put in under state government WorkCover/WorkSafe requirements, which would have related to working at heights and in confined spaces.

Senator WORTLEY—So, under the program that the government has put in, there is more regulation?

Mr Arblaster—It is at a higher level. The course itself is more detailed, but most of us in the insulation industry would not have allowed our installers to go out only having been on a two-day course.

Senator WORTLEY—Did your installers have to do the course as well?

Mr Arblaster—No, because most of them had more than two years experience in the industry.

Senator WORTLEY—So, when they first started off, prior to the government’s new requirements, there was no mandatory training and there was no formal training?

Senator BIRMINGHAM—Mr Arblaster stated before that he gave them two months on-the-job training.

Senator WORTLEY—Mr Arblaster may have, but what I am talking about is generally, in the industry, there was no formal requirement?

Mr Arblaster—There was no formal requirement.

Mr Liaskos—It was generally a self-regulated industry and the normal forces of competition worked and people sold their business and their products based on reputation, word of mouth and the warranties they provided.

Senator WORTLEY—So if someone came into the industry, if someone had come—

Mr Liaskos—So the scheme now has an enormous number of new entrants and as a result of that rapid influx of people and relatively easy access to the scheme there is a requirement for more regulation.

Senator WORTLEY—But someone has to start off at the—

CHAIR—Senator Wortley, can you place that on notice?

Senator WORTLEY—I am just finishing off this question. The thing is that prior to the requirements people had to start somewhere, so there were always going to be new entrants in the industry anyway. And now those new people must undertake mandatory training that has been put in place by the government.

Mr Liaskos—Which is a good thing.

Senator BIRMINGHAM—Gentlemen, despite the government having rushed in a two-day training course that sounds like it is quite inferior to what reputable people in the industry used to provide, are you confident that today, in the households of Australian families right across this nation, the installers of insulation know what they are doing, are installing it safely and are installing a safe product?

Mr Liaskos—There is a lot of anecdotal evidence out there to suggest that is not the case.

Mr Arblaster—With the two-day training course and better regulation, if the government did more checking of everybody who installed, we could raise the level.

Senator BIRMINGHAM—You could raise the level, but in terms of people in rooftops today, do they all know what they are doing and they are installing safe product?

Mr Arblaster—I cannot guarantee that, no.

Senator WORTLEY—But could you guarantee that prior to the implementation of the program?

Mr Arblaster—No, I could not guarantee that either.

CHAIR—Thank you very much, gentlemen. Are you able to table for the committee the minutes of the February meeting which you were speaking about, and also the document you got this morning, Mr Zuzul, that you flashed up in front of the committee?

Mr Zuzul—Yes.

CHAIR—Thank you very much, gentlemen. As you can see your evidence was far too sexy to fit within the time frame provided.

[11.23 am]

AYNSLEY, Dr Richard Michael, Private capacity

CHAIR—Welcome. Dr Aynsley, you have been in the wonderful backblocks since the commencement of proceedings and I think you heard the formalities, so I shall not repeat them.

Dr Aynsley—Yes.

CHAIR—Is there anything you would like to add to the capacity in which you appear today?

Dr Aynsley—I have been an academic for most of my life, and I am a director of research and development for a US company that recently started up in Australia. I still serve on standards committees, both in Australia and in the United States, and I have also been heavily involved with building regulations and research in New Zealand when I was Dean of Architecture at the University of Auckland. I have served on the board of BRANZ there, so I am well aware of all this. I have served on the home insulation technical committees of Standards Australia since 1975, so I have a fair background in what has happened in this country.

CHAIR—Dr Aynsley, do you wish to amend or change the submission you have lodged?

Dr Aynsley—No.

CHAIR—Do you wish to continue then, effectively making it a brief opening statement. You have seen we will have questions.

Dr Aynsley—I did make a few notes here for my opening statement. To save time I will not use it all, but I will pull out the main points.

CHAIR—You may care to table the written form.

Dr Aynsley—Many of the things I say now will be guided by field research done on test buildings in Townsville at James Cook University, particularly looking at heat transfer through roofs, which in some cases was funded by the Queensland government as a prior study to a larger study that was hopefully to be funded by the federal government, which did not happen. But we did get a lot of information out of the original study there. In addition to that, in the process of doing this work we found that there had been quite a lot of research done in the US on the particular things that we were looking at at Oak Ridge National Laboratory. Shortly after spending that time at James Cook University, I took up another position as Dean of Engineering Technology and Management at Southern Polytechnic State University in Marietta, Georgia. At that time I collaborated with people in Oak Ridge National Laboratory to produce software to better model the heat transfer by radiation through buildings, in particular in the roof spaces.

In relation to the Energy Efficient Homes Package, I think it should be continued. There may have been problems, but I think they can be addressed. The reason it should be continued, and the reason why the concept was very sound, is that if you are going to do anything on a large

scale to houses, one of the only accessible places in a building that is occupied is the roof space. You cannot go tearing out walls of buildings while people are living in houses. You could maybe look at the underfloor situation on buildings that are raised off the ground, however modern construction in many cases now uses concrete slabs on grade and, therefore, nothing can really be done about that.

So targeting roof spaces is a very practical approach to the issue and important because, generally speaking, Australia has warm climates and most houses are single storey. So the single surface of the building that receives solar radiation 12 hours a day is the roof. Walls will receive radiation, but only two walls maximum can ever receive it at the same time. So if radiant heat gain is an issue into buildings, then the roof is the place that you need to look at.

My interest has been, as indicated, in the warmer climate areas and some of the testing was done at James Cook University in Townsville. The thing about the study that was done was looking at the types of insulation used. We built a special building that had identical halves. One was uninsulated; the other we tried out different sorts of insulation in there. In particular, we looked at radiant barriers. The concept of radiant barriers has been around for quite some time. There has been a lot of work done by the Department of Energy in the United States on these, and they have been found to be extremely effective in warm climates. A lot of the work in that respect was done at the Florida Solar Energy Centre and I have collaborated with those people on different occasions. The thing about reflective foil used as a radiant barrier is it is different to all other forms of insulation. Other forms of insulation are normally referred to as bulk insulation because they use some fairly low-density material that tries to interrupt the passage of heat through the construction. The radiant barrier is simply a surface with a very low emissivity facing an air space which is well over 90 per cent effective at completely blocking radiant heat gain. And in the case of the roof, the proportion of heat transfer through the roof by radiation is over 80 per cent.

The next thing is: in the tropics there is a strong preference for metal roofs—particularly on the coast. One of the reasons for this is that if you look at cyclone damage on houses, tile roofs cannot take much treatment in terms of tropical cyclones. Metal roofs do very well. However, in a humid environment with a metal roof facing a sky, particularly when there are low cloud conditions, the temperature of metal roofs can fall to eight degrees below air temperature at night. This is typically at about three or four o'clock in the morning. The humidity at that time is going to be around about 80 or 90 per cent and the result of that cooling of the metal will be condensation both on the upper surface of the roof and on the inside of the roof, and so it actually rains inside the roofs of these metal roofs in Townsville. In fact, it rained inside the new hospital that was being built when I was working at JCU and I was brought in as a consultant on that project. If you have bulk insulation across the ceiling below that raining surface, you get moisture build-up in the insulation which affects its insulating properties. It will heat up dramatically during the day but it will destroy the top layers and often the lower layers of the material are still damp.

Even in climates with slightly less humidity, if you have air conditioning in the building you can get similar sorts of effects happening. Where the air is cool to below dew point you will get condensation happening. The procedure in the building industry to deal with this is normally referred to as installing vapour barriers. The Australian building industry really does not understand vapour barriers. You need to go to other countries to find out how they are done. In

fact, there have been a lot of serious problems in the US in recent times and there are some very recent standards and guidelines being brought out by the ASTM—American Society of Testing Materials—to give guidance. The problems are becoming enormous generating mould, unhealthy conditions in buildings. Even in Australia we did a project for the Queensland government on schools—the Cool School program back in the nineties—and we were informed that the roof had collapsed on a school building in the Northern Territory due to wood rot and build-up of condensation. A similar thing happened in mining housing at Gove—another report was done on that—because there was an improper understanding of the need for vapour barriers to protect insulation from moisture penetration.

CHAIR—Can I ask you to bring your opening statement to a close—it is very interesting—so that we can ask you some questions?

Dr Aynsley—Looking back over the years I have been involved in home insulation, the technology of insulation has moved on dramatically since the time when the last standard was written in Australia, 4859. There needs to be a serious review of that standard. One of the problems is that there have been a number of studies that have shown that the R-values that are being quoted around here today from the testing that is outlined in that standard do not represent the R-value that is achieved in the roof. It is a different number because the testing does not even try to simulate that. There have been studies done here and some at the University of South Australia that dramatically show that there is a big difference between what people are sold in terms of an R-value and what they actually get. That is even when they comply with standard 4859. There is an urgent need to update that.

The other problem is that Standards Australia needs some very good supervision. For instance, one of its major jobs is to review ISO standards to see if any of those standards are relevant to Australia and how the information might be adopted. I serve on EN-003, energy and buildings, for Standards Australia and have done since 2005. They have not met for years. They sent me a list of ISO standards about four or five months ago that showed a whole list of ISO standards that had been sent to them. I checked off the ones that I felt I had expertise in and could evaluate, and nothing has happened. The thing is, Standards Australia really does not act in the public interest. It is not doing its proper job.

CHAIR—Thank you, and we will hear from Standards Australia later. We have five minutes to ask questions of you.

Senator McEWEN—Thank you very much, Dr Aynsley, for your submission. It is not often we get complicated mathematical equations in submissions but it is very useful to us. Can I just clarify: your concerns about what you call horses for courses, I guess, in terms of insulation for different areas of Australia predate the housing insulation package, and you say that you believe standards that apply at the moment need revision. How would that happen?

Dr Aynsley—The thing is, the standard which I was involved in writing calls for a whole lot of testing. The situation at the moment is that there is not a certified laboratory in Australia that can do a lot of that testing. CSIRO used to be able to do the testing long ago. It cannot do it anymore.

Senator McEWEN—You said ‘long ago’. How long ago? Decades?

Dr Aynsley—Probably 2003 or something like that. It was phased out as people left, so there was not a particular date. I think it is an embarrassment, really, that a small country like New Zealand can maintain a building research institute like BRANZ to test buildings and provide that sort of independent verification. We cannot do that here anymore. Lots of the testing is being sent to other parts of the world—the US and wherever—and one of the problems with that is that we have different construction methods between countries. They can test but it may not be what you think it is when the results come back. If we want to get this right, there needs to be some testing facility set up here, or people who can do the work endorsed to do that work and accredited. At the moment there are all these rules in the standard and people say they have tested to them but there is no independent body that can tick them off.

Senator McEWEN—So if we have that independent body then they would be able to take account of different climatic conditions in Australia and the different kinds of products that are used for this purpose. One issue the committee is dealing with is the use of foil as an insulation material. I do not think in your opening statement you got to that in particular. Is that the most appropriate material to use in tropical areas, and why?

Dr Aynsley—Yes, definitely, because the basic thing that you are trying to offset is solar gain into the buildings and it is by radiation. Really, none of the bulk insulations are completely effective against radiation. It will heat them up and they will have some effect, but radiant barrier is definitely the most effective way of dealing with radiation. There is one big advantage in that it is the only insulation that has a different R-value for heat flow down during the day and heat flow up during the night. If you have ever lived in a Queenslander, you will know—women will tell you this straightaway—that they are as hot as blazes in the day and get freezing cold at night, particularly west of Brisbane. That is because the metal roofs lose heat dramatically.

Radiant barriers will stop that heat during the day and allow the building to cool down at night. So, as long as you do not have severe winters and cold conditions up in the granite belt and whatever, you are much better off using a radiant barrier approach to insulating in the tropics and providing air movement through the building than trying to close it in and insulate the walls et cetera.

Senator McEWEN—Thank you very much for that. I do not have any further questions.

Senator WORTLEY—When was standard 4859 brought in? Do you know off the top of your head?

Dr Aynsley—There was a first version that was brought in and that was amended in appendix K, which I was involved in, during 2001.

Senator WORTLEY—And you are saying that is no longer sufficient?

Dr Aynsley—Yes.

Senator WORTLEY—Thank you. In your submission, you talk about the product not actually being the problem, but you raise the issue that there is a failure to follow already defined safety procedures. Can you just elaborate on that?

Dr Aynsley—While it has been used for a long, long time, I think what has been said on a number of occasions in the press lately—and whatever—is that the problem is inappropriate installation by people who are not properly trained. It is as simple as that.

Senator WORTLEY—So it is inappropriate training. Is it anything else? Are the safety guidelines there?

Dr Aynsley—Yes, the installers of foil are trained, as are the other insulation providers in the industry.

Senator WORTLEY—So is it to do with the training or is it to do with not adhering to what is taught in the training?

Dr Aynsley—One of the issues is that roof spaces—as I said before—can be very dangerous places, particularly in older buildings where people have been fooling around with the wiring et cetera. What has not been mentioned here is that the electrical cabling back before 1980 or so was rated in such a way that it depended on being exposed to air to provide some sort of cooling because of the current that was going through those wires. It was found around that time that, because insulation was starting to be put into buildings, the gauge of the wires in the cable should be increased to reduce this heating effect because, if you enclosed it or covered it up with insulation, it would get hot and it had caused fires. So now modern buildings with the appropriate cabling can have insulation put over the cabling and it will perform quite adequately. But in a program like the one we have now, where people are putting insulation into older buildings, it is a bit hard to know when that wiring was done and just what wiring you are looking at.

Senator WORTLEY—But specifically you talk about following already defined safety procedures.

Dr Aynsley—One of the procedures is that there had been in some cases people stapling foil with metallic staples. That is no longer done in the industry. They use plastic staples.

Senator WORTLEY—How long has that not been standard practice in the industry?

Dr Aynsley—The last couple of years.

Senator WORTLEY—And it is not allowed now through the government's program?

Dr Aynsley—No.

Senator WORTLEY—It has been disallowed?

Dr Aynsley—That is correct.

Senator WORTLEY—So it has not been standard practice. They have been using plastic.

Dr Aynsley—Yes, and up until recently there had been virtually no problems.

Senator WORTLEY—In the last two years, while the plastic has been used.

Senator BARNETT—Thank you, Dr Aynsley, for being here. We have read your submission and listened to your opening comments. You are obviously quite condemning of Standards Australia, saying that they are ineffective and that you do not support their current approach. On page 2 of your submission you say that the bulk insulation such as fibreglass installed directly under a metal roof can be subjected to temperatures of up to 100 degrees but it is only rated for 23 degrees. Can you confirm that and tell the committee the implications of that and the consequences in terms of risk for, say, fire and other related risks?

Dr Aynsley—This is one of the things that need to be looked at in the standard. The standard was set at 23 degrees. There were a lot of arguments about it, and that is what it came out at. There is a graph in the standard that shows what happens to the R-rating if the average temperature either decreases or increases above that number. But the labelling on the product is put down, as the result of the testing, at the average temperature of 23 degrees in the fibreglass.

One of the ways of avoiding some of these condensation issues, say in Queensland, is to put a blanket with a foil backing facing down hard up against the underside of the roofing iron, which prevents air circulation between the underside of the iron and the fibreglass. Effectively, this stops that condensation effect occurring.

Senator BARNETT—I will interrupt and draw you back to the question, which is: what are the consequences of this product not being rated appropriately where the product is subject to temperatures of 100 degrees Celsius, which is your evidence? What are the consequences of that, intended or unintended?

Dr Aynsley—You get more heat transfer through the product.

Senator BARNETT—Could that cause risks of fire and related concerns?

Dr Aynsley—No, but it would result in a lot more heat transfer than you would expect from the R-rating on the material.

Senator BARNETT—So it is not doing its job as it is intended? Would it be noncompliant?

Dr Aynsley—No. It is compliant. This is a problem with the way the standard is written.

Senator BARNETT—It does meet the objectives of the program—that is really what you are saying?

Dr Aynsley—Yes, I am saying that these are some of the things about the standard that need looking at. If the material is put down, as we have been talking about, largely across the ceiling, then it is a different situation. The temperatures are not as high as that, but they are still higher than 23 degrees. But, if it is put down across the ceiling without some protection from condensation dripping off the roof, then you have a potential moisture problem. So there are issues, particularly along the North Queensland coast.

Senator BARNETT—So this insulation that is going in is breaching the standards that are currently there. You are saying that that is a concern and that Standards Australia should look at it and have it reviewed?

Dr Aynsley—It is normal for standards organisations around the world—such as ANSI in the United States or organisations in other countries—to review, in the public interest, standards every five years. It is about time, now, for a new look at 4859, particularly in the light of recent developments. Research—not in Australia, necessarily, but mostly overseas—marches on, and there are a lot of things we can benefit from. That is why it should be done.

Senator BARNETT—But you are saying that Standards Australia is ineffective. You do not support the current arrangements; you think there should be a review. Are you saying that the current arrangements are inadequate?

Dr Aynsley—Yes.

Senator BARNETT—We have had evidence this morning that 30 to 40 per cent of the insulation that has been put into homes around Australia is noncompliant, and we have had evidence that there are risks of fire and health related risks and so on. Does that sound about right to you based on your knowledge and understanding of the industry? The evidence that was put was based on imported product from, I assume, China and the USA and other places, and we had evidence of that this morning. Does that sound right?

Dr Aynsley—I do not have any detailed information on that.

Senator BARNETT—Do you know how much is being imported?

Dr Aynsley—No.

CHAIR—Thank you very much, Doctor, and I hope you are going to table your opening statement, which has far more detail—

Dr Aynsley—Yes, it has.

CHAIR—beyond what you were able to say. Thank you very much for your time and your evidence today.

Proceedings suspended from 11.49 am to 12.03 pm

TIKEY, Mr Brian, President, Aluminium Foil Insulation Association Inc.

CHAIR—Welcome, Mr Tikey. I think you have been in the room and heard the formalities earlier.

Mr Tikey—Yes.

CHAIR—How about your name, rank and serial number nonetheless for Hansard.

Mr Tikey—My name is Brian Tikey and I am the current president of the Aluminium Foil Insulation Association, a position that I have held for the last six years. By way of background, I have had some 36 years in the housing construction industry and with that I think that I do carry a portion of understanding of some of the issues that are at hand in some depth in regard to the housing insulation scheme and the overall insulation industry.

CHAIR—Thank you. We look forward to hearing about that. Do you wish to change your submission in any way?

Mr Tikey—No, I do not.

CHAIR—Then proceed to make a brief opening statement, because we will have lots of questions for you.

Mr Tikey—I will be quite brief because I understand the time restraints. I do not have a formal opening statement to table as such—

CHAIR—We would love to hear what you have to say.

Mr Tikey—Thank you very much. I do have one document that I do wish to table. The reason for AFIA's submission is pretty straightforward. We wanted to present an historical overview of the industry and some of the concerns that we have with the industry as a whole that we believe have a flow-on effect into the HIP program. While we have always supported the federal government's activities in bringing about the scheme, there have understandably been a number of areas where it has come unstuck. We have noted it. We were never consulted at the outset of the scheme and we are very mindful that, unless we have a program in place that is going to have complete safety, complete auditing and complete understanding of the installation practices right across the board for all insulation materials, then we will continue on the path we have got. I believe the current path is an absolute train wreck with regard to the reflective insulation industry.

CHAIR—Thank you. That was very brief.

Senator McEWEN—Mr Tikey, have you met with Minister Garrett?

Mr Tikey—I attended one meeting, which was after the first death, and I think that was October. That was a round table industry meeting. It was the first one that I have ever attended at which Mr Garrett was present for about 15 minutes or thereabouts.

Senator McEWEN—Do you participate in the other round tables about the energy efficiency programs?

Mr Tikey—Different members of our association have attended those meetings.

Senator McEWEN—So you have been part of the consultation process as the program has been rolled out.

Mr Tikey—Yes, we have.

Senator McEWEN—Foil insulation has been used in Australia for a considerable period of time. Is that right?

Mr Tikey—That is correct. The first roll of foil was bought into Australia around 50 years ago and it has been used successfully, to the best of my knowledge, by our eldest member for up to some 25 years without incident.

Senator McEWEN—What areas of Australia is it used in mostly?

Mr Tikey—It can be used in any climate zone in Australia on its own where it is appropriate or in combination with bulk insulation materials. Treating the building envelope is by far the best route to successfully insulating a building of any type. When you deal with the primary source of heat flow, which is radiation into the building, you start with the envelope, whether it be from the floor, the walls or the roof. Then you balance it up with what is required to get the best thermal performance out of that building through bulk insulation. That can be an accompaniment on the building envelope or it can be in the ceiling attic space.

Senator McEWEN—Do you have any comment to make on Dr Aynsley's presentation about the use of foil?

Mr Tikey—I would concur with Dr Aynsley on just about everything that he has said here this morning, particularly in relation to the issues surrounding bulk insulations in our northern climate regions, such as northern Western Australia, the Northern Territory, Queensland and particularly northern Queensland areas, and northern New South Wales.

Senator McEWEN—Do you know what percentage of installations are foil as opposed to the other products that are available?

Mr Tikey—I do not have the exact figure but at a guess I would say that total reflective insulation in the Australian insulation market—and it has been put outside the HIP scheme at the moment—is probably around five to six per cent.

Senator McEWEN—So that is before the HIP scheme?

Mr Tikey—No. I do not know what total number of square metres used in the housing insulation program is reflective insulation.

Senator McEWEN—You do not?

Mr Tikey—No.

Senator McEWEN—But it was six per cent before the—

Mr Tikey—No. I am talking about the overall market.

Senator McEWEN—Yes, okay. So is it still six per cent?

Mr Tikey—Yes, it would be around six per cent—somewhere between five and six per cent.

Senator McEWEN—So the figure has not changed with the implementation of the program?

Mr Tikey—Again, I do not know the exact figures because there are people installing reflective insulation materials who are not members of AFIA. I have no governance over that or how much material has been imported that has been installed here. I can only account for our members' activities. You have to understand also that every insulation manufacturer in Australia is pretty guarded about the total number of square metres they either manufacture or supply to the market every year.

Senator McEWEN—Why?

Mr Tikey—It is the way it has always been. The whole industry has been pretty fractured for years.

Senator McEWEN—Because of the competition between the different products provided?

Mr Tikey—I think it goes a long way back to Standards Australia, as Dr Aynsley pointed out before. In fact, I will go one step further—as I did in my submission to Commissioner Fitzgerald—and say that the process for the development of standards comes under the control of the committee. Standards Australia manage it and then they publish it but it is the committees that actually develop the technical aspect. So you have in-house fighting all of the time on the technical aspects. In my opinion, standards for the insulation industry need to go out of house from Standards Australia to a more technical expert organisation like ERA. Then you would remove the commercial aspect of a company that sits at the table on that committee. As you would know from my paper, the fibreglass industry for a number of years held more votes than any other association. They had up to perhaps six votes where AFIA would have one, the polyester association would have one and the cellulose association would have one. That is an imbalance. To me, that is just straight out capture.

Senator McEWEN—Are you perhaps suggesting the committee should take some of the evidence we heard earlier in the day with regard to the importation of products through the prism of competition within the sector?

Mr Tikey—In my opinion, all products within this program or in fact being sold into the insulation industry as a whole should be product certified. There should also be a responsibility of the manufacturer to develop installation methodologies and guidelines. I have tendered some of those notes. What I would like present to the Senate is that those guidelines should then be passed on to installers. You often find that manufacturers do not employ or engage the installers themselves. The cellulose industry is slightly different, but in general manufacturers of fibreglass, polyester or reflective insulation materials do not employ installers. It is not a trade; it is just an activity of industry that has been unregulated, with the exception of industrial. That is a totally different thing, so we will get back to housing and general commercial applications. I think there is a duty of care there for manufacturers to develop installation methodologies. I think this needs to be part of the program. So you would then have a pathway way where there was product certification, whether it was locally manufactured or a product that was imported. They would all then have the rigours of product certification applied to them, which would basically be done in compliance with the Building Code of Australia. Everyone would be on a level playing field then. Then the installation methodologies would be a process which the manufacturer would then go and develop and he would ensure that if there was a recommended installer they were trained according to that product they were actually going to install. I think that would go a long way towards alleviating some of the problems that we have.

CHAIR—Mr Tikey, would you care to table the document that you have been referring to?

Mr Tikey—I will.

CHAIR—If you would care to do so now, that would assist the committee. Senator McEwen, do you have a question?

Senator McEWEN—You talked about the installation methodologies. How would that fit with the training program that the government is now requiring of installers and the risk assessment process of roof space?

Mr Tikey—I think the installation methodologies are very important processes. It is just something that our industry has really not acknowledged or done anything about while I have been involved in the last 13 years. I believe that DEEWR has a manual—which, I would like to make the point, was actually tabled at that October meeting that I was at—that would come under review and AFIA would be called to participate in that. I have not received a request to date to attend that review. Even at that point, and given the two letters that I tendered to the department and the one to the Prime Minister's office outlining some of our concerns, we have never been part of that process—not even the original development of it. How can we put forward our best practice views unless we are consulted? I go right back to day one, when I think the government gave industry three weeks to get itself together and get the scheme on the road—something in the order of that time frame.

Senator BARNETT—It was February last year—the early period.

Mr Tikey—Yes. I think you would go right back to February.

Senator McEWEN—With regard to the training of installers, what was the situation in your sector before the government requirement that installers achieve competency?

Mr Tikey—There has been no control on installations in our industry as a whole—ever. Never. I guess that, from the situation we have now, where foil has been temporarily suspended, to going forward, AFIA has actually taken a forward step and I am in the process of developing an AFIA self-managed process whereby our manufacturers, if they want to enter into the program or continue with the program, would go through that material compliance path, through the electrical safety path and through the manufacturer being responsible for developing installation methodologies. He then recommends an installer, the installer gets trained and puts all that together at the end of the day, and AFIA will give accreditation to both the manufacturer and the installer to go and register with HIP. That, I believe, is a responsible path to go forward.

Senator McEWEN—Thank you.

Senator BIRMINGHAM—Mr Tikey, thank you very much for your time. This program and the administration of it have ended up being an unmitigated disaster for your sector of the industry, haven't they?

Mr Tikey—A train wreck!

Senator BIRMINGHAM—A train wreck?

Mr Tikey—A train wreck.

Senator BIRMINGHAM—And that is because, of course, it has severely damaged the reputation of your products—

Mr Tikey—Unnecessarily.

Senator BIRMINGHAM—unnecessarily so—and has now created an enormous competitive disadvantage for your sector.

Mr Tikey—It has indeed. Could I make one point that was put to the cellulose industry before about calling for the suspension of the program until we, perhaps, sort out the problems.

CHAIR—Indeed you can. I was going to ask you the very same thing.

Mr Tikey—The Aluminium Foil Insulation Association has been given no warning. I got a phone call—I believe when I was in New Zealand last week—when the button was being pushed for suspension.

Senator BIRMINGHAM—To say that use of foil was suspended from the program? So did you find out after the fact?

Mr Tikey—It does deal instantly with the rogue installers. But the trail of destruction it has wreaked has meant that those bona fide manufacturers in our association—and they are the ones I am most concerned about; some of them have been in this industry for many years, have done everything to assist in developing standards and do not trade in HIP—have unfairly and unduly become the recipients of bad press. Their offices are awash with phone calls asking, 'Is my insulation safe?' 'Is my house safe? Is my commercial building safe?' It is just disruptive all

round. Neither I nor the association nor its members are happy about the way this has been managed. I am not saying that there is nothing wrong with the program and that it has been great; I am just talking about the process by which we have found ourselves in this position today. We were never consulted right at the start. Had we been consulted and had some of the areas we raised concerns about been taken on board, we would not be where we are today.

Senator BIRMINGHAM—How many foil manufacturers and installers in Australia do you estimate there to have been prior to this program?

Mr Tikey—My understanding is that the AFIA has 19 members, and I believe that about eight to 10 of those trade in HIP. Seven of those members are new members who would have come on since the first death back in October.

Senator BIRMINGHAM—So there were a dozen or so, previously, of your members?

Mr Tikey—Yes; there were 12. Only a couple of them were really trading in the HIP program.

Senator BIRMINGHAM—How many people would those companies have employed, roughly?

Mr Tikey—One in particular has been around for 25 years, basically operating in Queensland. He has been installing retrofit foils without incidents. I am not sure what size staff he has, but he has possibly half-a-dozen staff or so and maybe 10 or 12 installers. I am not sure, but it is quite a sizeable business.

Senator BIRMINGHAM—It is a reasonable-sized business with 25 years experience without incident.

Mr Tikey—Yes. That business is now stopped dead in the water—suspended.

Senator BIRMINGHAM—And he is now facing severe economic uncertainty, I would have thought.

Mr Tikey—Absolutely.

Senator BIRMINGHAM—You wrote to the Prime Minister on 9 February—just six days after the Prime Minister announced his grand plan to splash around a few billion dollars on insulation—outlining concerns with this program that he had announced. You highlighted, I see, concerns that it would open the door to many cheap imports. You highlighted concerns that many of those products would not meet Australian standards or be compliant with the building codes of Australia. That is all contained in your letter to the Prime Minister. You recommended that products should be required to meet those standards and you recommended a process to ensure energy efficiency. You received no response from the Prime Minister.

Mr Tikey—None whatsoever. I think the program had been gearing itself up for the previous six months to get underway, and again we had had no consultation. We just felt it was appropriate that we at least get something on the table to represent our position.

Senator BIRMINGHAM—You got no response from the Prime Minister, the minister, the department or anybody from government.

Mr Tikey—No.

Senator BIRMINGHAM—You got no response at all to the concerns you raised that, if listened to, could have led to the avoidance of some of the problems that your industry has faced and the tragic consequences that have come with them.

Mr Tikey—No; that is why I wrote a second letter.

Senator BIRMINGHAM—Very quickly and lastly, you highlight at the end of your submission an email from one of your members earlier this year which says:

What I teach my team over a 3 month ~ 6 month period they are fully trained and can cover all applications of insulation installation ...

Was that pretty much the industry standard from those—

Mr Tikey—Yes. As I said, there is a small number who are either distributors of products—not manufacturers but distributors—and one in particular, the writer of that email, who is the one that has been operating in retrofitting; he obtains any number of products, and he has been doing that successfully for 12 years. He has a process by which his business operates to successfully ensure that the product is installed correctly according to the manufacturer's specification. I guess I put that in there because I think it needs to have some semblance of what is real; of how somebody is actually feeling in here.

Senator BIRMINGHAM—And he is somebody you would think, from your knowledge of your members, had the type of training and process that most of them had in place prior to this program.

Mr Tikey—Absolutely. This particular company has been a member for probably for the last 10 years that I can remember and has always attended our AGMs or whatever meetings. He has always participated and commented. That is being responsible.

Senator BIRMINGHAM—And since then you have had a flood of shonky installers who have given people no training or now might whiz them through a two-day program?

Mr Tikey—Absolutely. We cannot control that, either.

CHAIR—You have a litany of problems with the home improvement program that you have tabled. Your organisation is saying these things have to be fixed.

Mr Tikey—I believe they are further areas that need to be looked at.

CHAIR—Would your organisation say that the home improvement program ought to be suspended as of today, unless or until these things are attended to?

Mr Tikey—Yes. I would like to see it suspended pending a full review, particularly an industry roundtable, because I think that is where manufacturers in the first instance need to sit down and come to an agreement, particularly with installation practices.

CHAIR—From your perspective there clearly would be upsides from suspending the program as of today. Would there be, from your perspective, any downside with suspending the program as of today?

Mr Tikey—The only downside I would see would be—and I take into account this view—where a manufacturer may have additionally geared up with expense and staff to meet the HIP program. But if you look at that as a single portion of the whole and then you deal with the import side, because I do feel in all honesty that is a major problem area—

CHAIR—So are you saying those very important downsides are nonetheless outweighed by the upsides of suspending the program?

Mr Tikey—I think the upside is getting it right. It is about the Australian insulation industry first and foremost. Products manufactured here that are compliant to the BCA and the standards are what need to be looked after first.

CHAIR—Unless it is also about the consumer, it cannot be about your industry, can it?

Mr Tikey—No, point taken.

Senator WORTLEY—The Aluminium Foil Insulation Association Inc. is an Australian organisation—is that correct?

Mr Tikey—Yes, since 1998.

Senator WORTLEY—And you have worked 13 years in the industry here in Australia?

Mr Tikey—I have been in the insulation industry for 13 years, yes.

Senator WORTLEY—In Australia?

Mr Tikey—Yes.

Senator WORTLEY—A month ago, how would you have responded to the question about suspending the program, remembering that you would be talking to your members? Talking to your members a month ago, were you speaking to them then that this program should be suspended?

Mr Tikey—No, I do not believe we had talked about it being suspended. I have always had concerns about it either being suspended without warning totally or being given a time frame of, say, six months when it was going to wind down. On the back of that what you end up with is an industry that is awash with untrained installers and product, and particularly if you suspend it you have got an enormous amount of product that is floating around that is other than what is manufactured in Australia that is going to be dumped on the market. I have a big problem with

that, not just within our industry but for the whole of the industry. The views are not just about reflective insulation materials or foil insulation, it is about the whole of industry.

Senator WORTLEY—So you had raised concerns with your members that if it was suspended that would be a problem?

CHAIR—If what was suspended?

Senator WORTLEY—If the program was suspended that it would be a problem?

Mr Tikey—No, I have not raised—

Senator WORTLEY—You have not discussed that with your members when they were purchasing?

Mr Tikey—No.

Senator WORTLEY—I thought that is what you just said. Perhaps you might want to clarify?

Mr Tikey—No, I am trying to provide you with the concerns. I have raised concerns with a number of people within our association before about the wash of product if the program were suspended or suddenly stopped for any reason or if, all of a sudden, industry were given notice that there was to be a six-month wind down. How we deal with that is not just an issue for our association; it is an issue for the other associations as well.

Senator WORTLEY—Today you have just stated that you think that the whole program should be suspended.

Mr Tikey—Yes, I do now in light of what has happened

Senator WORTLEY—In light of the fact that the foil industry—

Mr Tikey—Foil has been suspended.

Senator WORTLEY—Because foil has been suspended, you believe that the whole program should be suspended?

Mr Tikey—I believe that the—

CHAIR—That is not what I heard the witness say.

Mr Tikey—I think—

Senator WORTLEY—I am asking witness to clarify.

Mr Tikey—For the good of the consumer and the wellbeing of the manufacturers going forward, I believe that we need to put a halt to the program—maybe for a month or it might take two months—to get right the processes of product certification and installation practices.

Senator WORTLEY—Specifically in relation to the foil industry?

Mr Tikey—I think that is the whole industry.

Senator WORTLEY—Have you called for it to be suspended previously—apart from today?

Mr Tikey—No.

Senator WORTLEY—So were you happy for it to—

Mr Tikey—You need to appreciate that I have been overseas. You just get a phone call in the middle of the night saying—

Senator WORTLEY—That it has been suspended for that section of the industry because of concerns. A month ago, or prior to Christmas, you did not have problems with the program continuing?

Mr Tikey—Within my own organisation, I expressed concerns. I expressed concerns in the middle of last year.

Senator WORTLEY—Hang on a second. I do not think I have made myself clear. You have stated that you had problems that it may be halted at some stage. What I want to know is whether you have called for it to be suspended previously.

Mr Tikey—No, I have not.

Senator WORTLEY—You have called for it to be suspended now that the foil industry has been suspended. What I am asking, in effect, is whether it is because the foil industry has been suspended that you now call for the suspension of the whole industry.

Mr Tikey—I am not quite sure I understand where you are coming from, but what I will say is that, like every other association member in this room and like the manufacturers, we have attended the roundtable meetings as we have been requested to try and find solutions to problems that have been put on the table. There was never any talk about suspension at that point in time, but what we have now is one sector suspended, an inquiry happening and a whole raft of issues, such as the ones I have put on the table about aged wiring. I will put on record here that at that October meeting, I put on the table that aged wiring and downlights should be discussed. All that was discussed was downlights, for which we did make the use of covers mandatory for bulk insulations. There was another point which I now cannot remember—there were three—but aged wiring was pushed aside. I remember now—the other thing was safety manuals.

Senator WORTLEY—So, at the last meeting you attended—

Mr Tikey—That is the one in October that I attended personally.

Senator WORTLEY—Yes, the October meeting. You did not call for the suspension of the whole program then?

Mr Tikey—No.

Senator WORTLEY—Is it fair to say that you think it is unfair that the foil industry has been suspended while the rest remain getting the work?

Mr Tikey—I do, indeed.

CHAIR—Thank you and thank you, Senator.

Senator WORTLEY—I have just a couple of questions more.

CHAIR—Can you place them on notice?

Senator WORTLEY—I just want to raise one thing in relation to your product. You say that your product is not dangerous in the same way as other foil products, that are typically stapled to roof cavities?

Mr Tikey—I did not say that, did I? I understand where you are coming from, though. Just like there are varying degrees of different bulk insulations, you have different degrees of reflective insulation material. Some of these need fixing; some of them do not need fixing. The one that we have talked about, even at the roundtable meeting that I was present at, is the RFL—the single layer product, which is quite flexible. It does not have the rigidity that a lot of other products have when they are actually in situ.

Senator WORTLEY—Dr Aynsley spoke about plastic staples?

Mr Tikey—We agreed at that meeting—AFIA put the proposal up—to ban metal fasteners and introduce plastic fasteners. I was actually on the phone to New Zealand, and had samples, during the course of the meeting. So I had already taken an active step prior to the meeting.

Senator WORTLEY—Dr Aynsley said that the plastic staples had not been used, generally, in the industry for a couple of years prior?

Mr Tikey—No. I have never heard of plastic staples in our industry, here, up until I was made aware that they were available. Minister Garrett rang me. I cannot give you the date as I do not have my diary here. His office rang—

CHAIR—Perhaps you could provide the committee, on notice, with that date, Mr Tikey?

Mr Tikey—Yes. He did ring me, shortly after the death and before the roundtable meeting, and asked for my expert opinion. At that point, I indicated to the minister that I had been made aware that there was a plastic staple and that I would source such staple, and any technical information, and immediately see what I could do to get that product into the marketplace for use.

Senator BARNETT—Did Mr Garrett give you any advice at the time, in that conversation, that he was going to close down your business and the foil insulation program?

Mr Tikey—No, he did not.

Senator BARNETT—No impression whatsoever?

Mr Tikey—None at all. We discussed the greater concerns, and the tragedy, and what the reflective insulation industry can do to ensure that the installers have safe products to work with.

Senator BARNETT—Did Mr Garrett call you personally when you were in New Zealand and you were advised that your business would be closed down and the foil insulation closed?

Mr Tikey—No. Will Kimber from his office did.

Senator BARNETT—And you were in New Zealand?

Mr Tikey—Yes.

Senator BARNETT—Were you advised or was this without notice, the first time you had heard—

Mr Tikey—The phone call is all I got.

Senator BARNETT—What did they say?

Mr Tikey—It was just to advise that the minister was suspending reflective insulations and that a press statement would be released shortly. I would say it was there before I had finished advising our members.

Senator McEWEN—Can I just clarify—

CHAIR—This is your question, Senator?

Senator McEWEN—It wasn't, but I think it is important to clarify that the program has been suspended, in terms of foil, but you can still continue to install foil insulation for households or businesses in the normal market?

Mr Tikey—Absolutely, in normal markets.

Senator McEWEN—So your whole business has not shut down?

Mr Tikey—No, and that is what I said before. But there are some that have completely ceased trading.

Senator McEWEN—But the majority of your members are still trading?

Mr Tikey—Yes. Ten or 11 of our members are still trading because they are in the markets. For example, one business might only have five per cent of its trading in the HIP and 95 per cent is in normal, commercial and residential new markets.

CHAIR—Thank you, Mr Tikey.

Senator BARNETT—How many of the businesses in this area, the insulation business, are not trading or have been adversely affected? I assume they have all been adversely affected.

Mr Tikey—The seven new members, the distributor members—and I assume that they were installing as well—would have basically ceased business straightaway. There is one large distributor-installer member who has been active for 25 years. I am not sure what percentage it is, but somewhere in the order of 80 per cent of his business has gone from normal retrofit to HIP control retrofit. The HIP has just flooded on into the retro market. It has taken it over by default.

Senator BARNETT—Thank you very much for that. The advice you have given the government and your submission make it clear that it was in February last year, in terms of that letter, and you have answered Senator Birmingham's questions about that. Can you advise, on notice, what consultation, contact and communication you have had with the government since February last year? Can you just check your files and let us know, on notice, and get back to the committee?

Mr Tikey—Yes.

Senator BARNETT—We would like to know what contact and what communication you have had with the government and what responses you have received.

Senator WORTLEY—Can I just get that clarified—

CHAIR—No, Senator Wortley—

Senator BARNETT—Sorry, I have a final question.

Senator WORTLEY—It is in relation to that. When you say 'advice you have received from the government', do you mean Mr Tikey's organisation or Mr Tikey individually? He said earlier that he has had members of his organisations who have been representative on the roundtable.

CHAIR—Senator Barnett, can you ask the question again, please?

Senator BARNETT—Mr Tikey, I will put the question, whether it is you, your association or others in your industry.

Mr Tikey—Yes, I can identify those times.

Senator BARNETT—Yes, you can; thank you. Final question: you have said in your submission on page 2 that the program has been awash with unfit imported products and, particularly as it winds down, it will be awash with unfit imported products. Evidence was given

earlier today that 30 to 40 per cent of the products installed at the moment are in fact noncompliant. Would you concur with those assessments, and can you describe what you mean by unfit imported products?

Mr Tikey—It is unfit for commercial sale, and I can concur with the concerns other manufactures have. I can give an example—I am sorry again; I have been overseas since this, so I have not been able to return to my home state in Western Australia to pick up some of the information—there is a building around the corner from our offices and warehouse and it is literally full of unlabelled fibreglass insulation wrapped in plastic bags. There is no labelling whatsoever. It is obviously for the program. I have asked one of our guys to go down and take a photo through the window. It is not used; it is just a straight-out warehouse, and the consumer does not know what he is getting.

Senator BARNETT—What you are saying is: there is a breach of standards; you are concerned about risk to fire, health and other related concerns.

Mr Tikey—It encompasses everything. It is something that we have to get sorted out.

Senator BIRMINGHAM—In the last hour, the Prime Minister has boasted at a press conference in Canberra about an installer who has personally thanked him for helping to keep his business afloat through this program. Would you personally thank the Prime Minister—or what would you say to him if you had the chance?

Mr Tikey—I would say that the number in terms of the percentages, one in 7,000 is pretty low. I am not an installer by practice, so I cannot really comment. I am just calling for the industry to come to terms with where we are at and with many of the issues; they must be sorted out.

Senator McEWEN—I want to take you back to something you said earlier in your evidence, and that was: the program has been great. I acknowledge you went on to say ‘but’, but can you please elaborate on how the program has been great?

Mr Tikey—At the time the stimulus package, as it was called, was great for our industry sector. I have written in my submission: I understand all the issues surrounding the fibreglass industry. They cannot shut them down on Friday and start them up again on Monday. It just cannot be done, so they have to run 24/7. So if you have got a downturn in an economy to the severity that we were facing, I understand they have got bulging warehouses. The package was a great event to effectively help the industry along, but it was the process. Yes, the scheme has been great and it still is a great scheme going forward for the term of its endurance, but it is the manner in which it has been done . It has been a free-for-all for the installers and their competency and expertise. Every man and his dog can get his children to aid him to get up into the ceiling or pass the bats or whatever or whether it is reflective insulation: ‘We’ll just go roll it out and she’ll be done.’ There is no duty of care. We had some 200 to 250 installers nationally; now we have got 7,000 registered. What are we going to do when the program ends with 6,750 installers?

CHAIR—Speaking of ‘free for all’, before we let you go free can you clarify that, in calling for the suspension of the Home Insulation Program as of today, you are calling for that

suspension for the benefit of the insulation industry industry-wide, with no differentiation between foil, cellulose, polyester, green batts or yellow batts—that is, you are calling for the suspension, as of today, of the HIP for the benefit of the insulation industry industry-wide, for the benefit of consumers and for the benefit of the environment?

Mr Tikey—I could not put it any better. I am indeed.

Senator WORTLEY—Mr Tikey, are you aware of the government's requirement that part of a label needs to be left in the ceiling?

Mr Tikey—No.

CHAIR—Thank you very much for that answer. Thank you, senators. Thank you very much, Mr Tikey. As you can see, there is vigorous interest.

[12.45 pm]

BOSTROM, Mr Michel, Managing Director, Amalgamated Metal Industries

CHAIR—Welcome. You have been hearing the jousting that is happening. Did you also hear the formalities earlier on in the day?

Mr Bostrom—I have been here since the beginning of the day's proceedings.

CHAIR—Then I will dispense with the formalities. Do you have any comments to make on the capacity in which you appear?

Mr Bostrom—Amalgamated Metal Industries is one of the three or four largest foil laminating companies, both for insulation and packaging applications, in Australia. I am also the Vice President of the Aluminium Foil Insulation Association and I was the founding president of that association, though I am not speaking today in that capacity. I have a background as a—

CHAIR—So today you are speaking in your capacity as Managing Director of Amalgamated Metal Industries?

Mr Bostrom—That is correct.

CHAIR—Do you wish to amend or change your submission in any way?

Mr Bostrom—Yes, I will be changing the views expressed in my submission somewhat. New facts have emerged and my views have changed.

CHAIR—So are you adding to your submission or do you wish to correct something that is actually written in your submission?

Mr Bostrom—I have a background in economics, as a Treasury analyst, as well as in building and I strongly supported the incentive package. I think every economist in the country felt that the incentive package was mismanaged in the last recession because it was too slow, it did not work, and we were all really happy when the federal Treasury came out, so I supported it. Now I do not.

CHAIR—If I could ask the question another way: I presume we can accept your submission as correct as at the time you made the submission to the committee?

Mr Bostrom—Yes.

CHAIR—Thank you. You may care to tell us in an opening statement what you now wish to say.

Mr Bostrom—A lot of this committee hearing has been talking about governance, so, rather than talk about details as much as some of my colleagues, I would like to talk about principles of governance. A governance issue has been raised about the running of this program, but I think the governance issues go way, way further back than that. We are talking about 20 years back.

I will start with mentioning something Professor Aynsley mentioned. Not only academia but testing and development have been run down in the name of economic rationality. We have abolished the CSIRO testing facility. The Solarch rig at the University of New South Wales, run by Professor Ballinger and Professor Deo, which was a top-rate, internationally rated rig for testing airflow, thermal flow, condensation and vapour issues, failed to get support. That was shut down and a little piece of it was sold to James Hardie.

The Australian Institute of Tropical Architecture, which Professor Aynsley headed, was shut down. Professor Aynsley quite modestly did not mention that he went off to become the Dean of Engineering at Southern Polytechnic—one of the top 10 engineering jobs in the world. He is a leading authority. When I travel to South-East Asia and I mention Dick Aynsley, they say: ‘Oh, JCU! Australian cyclone code!’ They all model on our cyclone code. But when we need to renew our cyclone code I guess we are going to have to apply to the University of Edinburgh, where they still have an institute of tropical architecture—unlike Australia, which does not have one despite the fact that we are the only developed country in the world that has tropics.

In terms of standards, while the rest of the world’s standards have become immensely more professional over the last 25 years—conducted by professionals, scientists and technically sound people—in Australia we have gone backwards. We have privatised the standards association. It is now a business and it is there to make money. As I mentioned earlier, the committees are dominated by commercial interests. At the last meeting of the committee on insulation, three prominent scientists in the field, who expressed opinions as to what a suitable amendment would be, were completely disregarded and a vote was taken, largely amongst fibreglass salesmen, as to what the appropriate measures should be. That view carried—the views of the three scientists were completely disregarded and their report was thrown out.

The problem that we have with fires now is not a new problem. As Dr Aynsley pointed out, if you have wiring and you envelop it with fibreglass, polyester or cellulose—the material does not matter—you generate heat and you can cause a fire. That has been a problem for 30 years. There is no institution that we fund to sit around and think about that. We need academics in research institutes to consider these issues and raise these issues. These are not day-to-day issues; we need a background of research and governance.

I have a feeling of *deja vu* right now. I was living in Sweden and then in Canada when the massive insulation programs came in as a result of the seventies oil shock. I can tell you what is coming next. For your information, the next big problem is air quality. Our Australian manufacturers, including the fibreglass manufacturers, have very responsibly cut the formaldehyde content of their products at some cost to themselves, and I applaud them for this. The Australian government, however, has not brought in strict formaldehyde air-quality standards. The next thing that is going to happen is you are going to caulk all the houses to reduce leakage and a lot of imported fibreglass that has formaldehyde in it will all of a sudden start producing massive internal formaldehyde levels and you are going to be searching for

formaldehyde all over the place—you going to have a lot of air quality issues. But that is just one air quality problem that is connected with our industries.

The body that researches and keeps track of this most is a private company called Ecospecifier, run by David Baggs. He has to make his living by running a website. As a country, we do not sponsor somebody to keep track of this and to make sure that we are on the right track. This is not something that has to be done by a government department; we have to find academics and independent institutions.

The other big problem is condensation. The report I tabled, which was done by Macks and Robinson in 1987 at the Gove aluminium site, showed the destruction of buildings due to condensation in the tropics and subtropics. I keep hearing about cases since then, but nobody is looking into it. Who would look into it? The Australian Institute of Tropical Architecture, ideally. If there still was one and Dr Aynsley was heading it, he would no doubt have got graduate students to investigate this and keep track of it and keep bringing it to public attention. But there is not and the problem is ignored. Australians do not understand vapour barriers. The science was developed in southern Australia, where vapour barriers are not that applicable. Anywhere north of Port Macquarie they are critical.

CHAIR—We have so many questions we want to ask you, and all this is good. Senator Barnett.

Senator BARNETT—On page 3 of your submission you referred to the large number of imported products which are clearly inferior. Would you describe the evidence to support your claims, the extent of the imported products and what that means for homes in Australia today that have these products in them.

Mr Bostrom—We have already heard about the case of fibreglass batts that were tested. Mr Liaskos was talking about polyester batts as well. I certainly know I have seen fibreglass batts that did not expand. With fibreglass batts manufactured here, you take them out of the bag and they puff up. I have seen batts that just sit flat; they do not expand.

I have seen foil insulation which is clearly not foil insulation at all. It is metalised polyester. It does not have the reflectivity of foil so it will not perform as foil should. I have seen several examples of that. It is not reflective and it is not very durable. It is simply tiny droplets of aluminium that are deposited on a polyester surface, and the bond is not that great. It is not that durable. A foil can be expected to last for many, many years. Metalised polyester is what you get on a crisp packet. It looks really shiny but when you hold it up against the light you can see through it. It is only a partial, very thin covering of foil—

Senator BARNETT—Just to go back a second, your assessment is that the program is really a retrofit insulation of 20 years all in the one year—over the last 12 months—because of the government subsidy. This morning they indicated that it was, I think, about 14 years all in the one year. Are you suggesting that, as a result of the program and its design, we are seeing this flood of imports, and inferior imports? We had evidence this morning that some 30 to 40 per cent of the homes that have been insulated under the program are in fact noncompliant. Would you broadly concur with that assessment, and what are the consequences for those homes in

terms of having noncompliant insulation? Are there fire, health and other related risks associated with it?

Mr Bostrom—I cannot see that you can say there is any risk associated with it—a health and safety or fire risk. The product simply does not do the job that we, the taxpayer, have paid for it to do.

Senator BARNETT—So it is more an issue of value for money and not achieving the environmental objectives of energy efficiency. Is it therefore your assessment, as it was indicated before, that it is, at least to some degree, a waste of money?

Mr Bostrom—Well, I always supported the stimulus aspect of the program. Look, they were casting around. Personally I do not understand why we don't have a whole stack of programs all lined up for the next recession and, when the recession comes, we put them in, but—

Senator BARNETT—Did you expect to have 30 to 40 per cent, though, imported from overseas?

Mr Bostrom—Oh, yes. I was expecting to see that and more.

Senator BARNETT—And did you expect them to be inferior and noncompliant?

Mr Bostrom—Oh, yes.

Senator BARNETT—So you could see it coming?

Mr Bostrom—Yes. I fully expected that.

Senator BARNETT—Did you advise the government of your concerns or fears in that regard?

Mr Bostrom—I was not actually ever consulted. I am the vice-president of the association but, as indicated by our president, he was not consulted either. So I was not able to—

Senator BARNETT—Who is your president, just to get the names correct?

Mr Bostrom—Brian Tikey is the president of our association.

Senator BARNETT—Did you ever write to the minister or the Prime Minister expressing your concerns, or did you leave that to Brian Tikey?

Mr Bostrom—I did at one point try to get in contact with my local member where my Sydney factory is.

Senator BARNETT—Who is that?

Mr Bostrom—Peter Garrett. I was unable to contact him through the constituency office.

Senator BARNETT—Did you ring, or write to him?

Mr Bostrom—I rang and wrote. But that was already in October. I didn't express reservations very early, no.

Senator BARNETT—So you rang and wrote to your local member, which is Minister Garrett, in October. Did you get a response?

Mr Bostrom—Yes, I got put on to the—I was disappointed because I thought that 45 jobs in his constituency should attract—but earlier this week I got a meeting from Minister Garrett, though.

Senator McEWEN—So earlier this week you actually met with Minister Garrett?

Mr Bostrom—Yes. Actually I would like to make a point here that Minister Garrett has won a certain degree of admiration from our members because when there was the first electrocution there were all these calls in the press and by various people to ban foil and I think he took the measured and intelligent step of saying, 'What is wrong?' He didn't simply just ban our product, which would have been politically easy to do. I would like to put that in.

Senator BARNETT—So he didn't respond. You were disappointed initially when you rang and wrote and you did not get a response, but did he then suddenly just call you up and say, 'Let's have a meeting?'

Mr Bostrom—No, during October I was very pleased with the public response. That was a—

Senator BARNETT—But he didn't respond to you personally, that is what you are saying?

Mr Bostrom—No.

Senator BARNETT—And that surprised you?

Mr Bostrom—Slightly. You know, I can meet—

Senator BARNETT—But on what basis did you have the meeting last week?

Mr Bostrom—Earlier this week.

Senator BARNETT—Earlier this week.

Mr Bostrom—I am asking for the information. I would have said earlier that I am extremely concerned about the results of 700 audits showing 21 live foil installations. I am probably even more concerned about 142 pre-existing faults. I badly want our electrical safety consultant, Professor Alex Baitch, to have the raw data available and to analyse them. What does 'live' mean? You can put a voltage meter and get a live reading, and it is just static. Was that live in the sense that it could kill somebody? Was it live with a tiny current? Was it live with a large current? How much charge was there? How many amperes came through when you earthed it?

Senator BARNETT—Did you express your concerns to Mr Garrett in the meeting?

Mr Bostrom—Very strongly, with respect to the 142 pre-existing problems. The installation end of the industry has relied in the past on experience learned. As several people have already said, and Andrew Arblaster earlier emphasised, they work together. This is how the workers learn. If there were 142 pre-existing problems, I want to know: is that noncompliance or is it potentially deadly faults?

Senator BARNETT—What did he say when you expressed your concerns?

Mr Bostrom—He understands my concerns, and he is waiting for the department to advise him, but he is not releasing the data right away.

Senator BARNETT—Did you see the data? Or did he just tell you about the data?

Mr Bostrom—I read it in the *Australian*. That was the only—

Senator BARNETT—But did he give it to you?

Mr Bostrom—No. Only the *Australian* gets this information; nobody else in the country gets this information! The *Australian* know the right sources.

Senator BARNETT—But did you ask him for it? You wanted it, but it was not available?

Mr Bostrom—I asked him for it, and I am asking again. I think it is critically important that safety experts be able to examine the data. And I think it is absolutely unfair, if our industry is to be hung on this, that we not see what the data are telling us. If there really is that severe a problem of pre-existing faults, I do not think anybody should go in a roof without pre-testing by an electrician. We have relied on the fact that experienced workers see suspicious things and avoid them. But you cannot run a program with inexperienced workers if you have that level of electrical faults in roofs. Our experienced workers have managed to avoid it. It is a recipe for disaster. We will have more electrocutions.

Senator BARNETT—It is clearly a serious issue. You have said that all three deaths, in your view, were preventable.

Mr Bostrom—There have been four deaths.

Senator BARNETT—Yes, but you have said in your submission—

Mr Bostrom—Oh, there had been three deaths.

Senator BARNETT—But now you say on the record that they were all preventable?

Mr Bostrom—They were certainly preventable in the sense that, if we had safe work procedures—I am actually changing my view. I thought it was enough to have safe work procedures. At the time I was of the view that what was really lacking—and I expressed this view at the roundtable—and what we should have was a condition such that, every time a

worker goes in a roof, there should be at least one person there who is either a tradesperson, or who has at least six months experience in the industry, who has danger sense. You cannot teach that in six hours or in two days. That is learned on the job through being around staff, and through being with older people who teach you. When you see something you do not like you say, 'I'm not doing that; I'm not going there; I'm not touching that.' Youngsters do not know that.

Senator BARNETT—So, if we had designed the system and the program correctly in the first place, you are saying that those deaths could have been prevented?

Mr Bostrom—I do not know if I am saying that. I am not talking about the program—I am saying that the whole way that safety is managed has been wrong. I am a factory owner. I called WorkSafe NSW and told them: 'Look, we have just introduced a bunch of changes in our factory. I'd like you to send down a factory inspector.' There used to be an animal in Australia called the 'factory inspector'. Some of you will remember this. That is extinct. They told me, 'Oh, we don't do that anymore; what we do is we prosecute you if somebody dies or somebody is injured.' There is no—

Senator BARNETT—The point is that there have been a lot of warnings—in fact, 18 warnings—to Minister Garrett and to his department. That is the advice I have. Evidence has been put before the committee today that in fact letters were written to the department as early as February 2009 talking about the concerns, the worries, the anxieties, the fears, the need for proper standards and proper regulation, and that is the concern. You have said in your evidence that these deaths were preventable, and that is the concern.

Mr Bostrom—Absolutely, but I do not think that the warnings have gone far enough with the people who are saying, 'Oh, we have to give training'. I have never believed training was efficient. I believe that you have to have people experienced. I do not think workers get—

Senator BARNETT—So a lot more needs to be done.

Mr Bostrom—No, it is not 'a lot more'; it is very, very little. You have to have a rule like the rule that I have in my factory—that is, no man is ever allowed in the factory alone; there must be two at all times and one of those must have been working for at least six months in a factory. That is a simple safety rule.

Senator McEWEN—Mr Bostrom, can I just clarify: you are questioning the results of the electrical inspections that have been undertaken?

Mr Bostrom—Yes.

Senator McEWEN—But haven't they been undertaken by qualified electricians?

Mr Bostrom—I do not know. I know nothing. I would love to see the report. Can you secure a copy of the report?

Senator McEWEN—The inspections are still being undertaken.

Mr Bostrom—But there is a preliminary report that has been prepared, some details of which have apparently been leaked to the *Australian*. All I have to go on is what I read in the *Australian*.

Senator McEWEN—Which I think all of us at this table would agree is not the best source of accurate information all the time—

Mr Bostrom—Yes. Actually, I even pointed out to Minister Garrett that he took a strong view of freedom of information.

Senator McEWEN—and certainly is no friend of Minister Garrett, I would suggest. The other questions I had were about your claims about noncompliant overseas products. What evidence do you have that overseas products are noncompliant?

Mr Bostrom—I have seen fibreglass bats that are this thick, something in the order of 50 millimetres. Nowhere in the HIP can you install a batt of 50 millimetres and meet the program guidelines, so they have to be noncompliant. That is an inference. It is arguable that they could have been intended for some other purposes et cetera. That is an inference.

Senator McEWEN—That is right. So you are making an inference, from what you have seen, that those products may be being used in the HIP, but you have no evidence that that is the case.

Mr Bostrom—No, I have also seen product which I know to be used in the HIP and which appears to be metallised polyester. If it is metallised polyester, it will not get the reflectivity that foil gets. I think that James Fricker here, who is an expert on—

Senator McEWEN—But that does not mean that it is not compliant with the standards in terms of its R-value. It might not be up to what you claim foil provides, but it does not mean that it is noncompliant.

Mr Bostrom—I do not claim; I get it tested by the University of Western Australia and calculations done by James Fricker, who is sitting up the back here. We then reach R3.1. If you did not have 97 per cent reflectivity of your foil, you would struggle to get past the R3 minimum level required, so I cannot see how a metallised polyester film product could meet the R-value required by the program. I do not see that it is possible.

Senator McEWEN—But you do not have evidence that it is noncompliant.

Mr Bostrom—There is an extremely strong inference. It is virtually impossible for it to be compliant.

Senator McEWEN—We have lots of inferences in this inquiry, Mr Bostrom, but precious little hard evidence. I am just trying to see if you have any supporting evidence. Have you made any representations to the ACCC or any other government organisation that could check the compliance?

Mr Bostrom—Not with regard to this, no. But in the past I have made representations to the ACCC.

Senator McEWEN—In the past, but not recently.

Mr Bostrom—Not recently. My experience with the ACCC is they had a brief flurry of interest in insulation and ever since then representations to the ACCC get you nowhere.

Senator McEWEN—They did have a successful case in 2007 against an importer.

Mr Bostrom—They had a brief period when they were very interested in our industry, and since then they have lost interest. I do not reproach them; presumably they have a lot of other things to do.

Senator McEWEN—Mr Bostrom, in your opening comments you made the statement that there are governance issues with the insulation sector going back 20 years. Is that right?

Mr Bostrom—Yes.

Senator McEWEN—And then you pointed us to a couple of events that have happened. One was the abolition—I think I have the right word there—of the CSIRO testing facility. Do you know when that happened?

Mr Bostrom—That was 2002 or 2003. Maybe even 2004.

Senator McEWEN—Do you know when the Australian Institute of Tropical Architecture was shut down?

Mr Bostrom—That would be around the same time. Professor Aynsley says it was 2000.

Senator McEWEN—And when was the Standards Association privatised?

CHAIR—Mr Bostrom, either you can answer the question or you cannot.

Mr Bostrom—That was around that same time as well.

Senator McEWEN—Okay, so all of those things happened in the currency of the previous government.

Mr Bostrom—They did.

Senator WORTLEY—You said that you have come to a conclusion about workers going up into the roof space. You thought that safety practices were enough, but you have come to the conclusion now that you need two workers to go up into the roof space.

Mr Bostrom—No, I have always believed that. I have always believed that you should have two workers, one of them experienced. I have come to the conclusion now that, given that we have inexperienced workers, if we are to avoid further electrocutions and if we are to avoid further house fires, then we should have electrical pre-inspections. That is a provisional conclusion based on what I have read in the *Australian* of the results of the electrical

investigations. If what the *Australian* is writing is true, and if these are really significant pre-existing faults that are dangerous faults—142 out of 700—then I do not think we should be sending even experienced workers in with that fault rate. Having said that, we have been operating for 54 years in the foil industry and, as far as Ted Renouf, who imported the first roll of foil into Australia, tells me, there has never been an electrocution. But that does not mean you can bring in new workers and inexperienced workers and expect them to survive it and be safe. When it was just a small industry that was okay; at this scale, it is not okay anymore and the electricians should be checking. Actually, what you should be doing is what the electricians have been agitating for for years—that is, doing an electrical inspection on houses every time a house is sold. If it is over 20 years it means an electrical inspection. I was a house renovator at one time. There is a lot of really old, weird electrical work there that has to be brought up to date.

Senator WORTLEY—And how long have the electrical inspectors been calling for that for?

Mr Bostrom—Electrical inspectors are always calling for more work for electricians. It is a background noise when you talk to people in the electrical trade, so for a long time.

Senator WORTLEY—So it is more regulation of the industry.

Mr Bostrom—It is more updating of deficient electricity in old houses. That is an ongoing standing problem in our housing stock. Now that I seem to have evidence that it is worse than I thought it was, I have changed my view. I do not think we should—

Senator WORTLEY—So we have two issues here: we have the issue of installing insulation and the other issue of the electricians.

Mr Bostrom—Exactly. That applies to someone who is installing insulation, someone who is installing air conditioning, water heaters, running an antenna et cetera. It really has an impact on new workers in that area. The old workers, they see it, they watch out for it. It also has an impact on fire safety. Fires start from old wiring.

CHAIR—Thank you very much, Mr Bostrom, for your time and, in particular, your evidence today.

Proceedings suspended from 1.13 pm to 2.07 pm

D'ARCY, Mr Dennis, Chief Executive Officer, Insulation Council of Australia and New Zealand

TANNOUS, Mr Anthony, President, Insulation Council of Australia and New Zealand

THOMPSON, Mr Raymond (Ray), Director, Insulation Council of Australia and New Zealand

CHAIR—Welcome. Do you need to change your submission to us?

Mr D'Arcy—No, we do not wish to change our position.

CHAIR—Then we would welcome a brief opening statement, thank you.

Mr D'Arcy—By way of introduction, ICANZ represents the two major and oldest insulation manufacturers—Bradford Insulation and Fletchers Insulation. These two companies both have assets in excess of \$500 million and are owned by publicly listed companies, CSR Ltd and Fletcher Building. With that, come the commensurate corporate and social responsibilities of the Australian Stock Exchange and ASIC and other regulatory, shareholder and public requirements. CSR has been producing insulation for over 75 years and Fletcher for over 50 years. I estimate, from information given to me by my members, that they directly employ over 1,000 people involved in insulation.

I am the CEO of the association and not a direct employee of either company. My members manufacture glass wool, rock-wool, and reflective foil insulation products and market a range of other insulation products. To give you some perspective on the size of that, the capacity in glass wool is about 90,000 to 100,000 tonnes and the current sales of foil insulation are somewhere around 60 million square metres, with the capacity to produce 100 million square metres. In glass wool insulation, Fletcher make Pink Batts and Fat Batts and Bradford make Gold Batts, and between them they have supplied the majority of ceiling insulation in the ceiling insulation program. We estimate that to be about 68 per cent of the total program. This is not a 'pink batt' program, for those of you who like to call it that. It involves the whole insulation industry, not just batts but a lot of other products.

We believe that in the total insulation industry we supply around 70 per cent of all insulation. That is not only existing homes; that is new homes, commercial buildings, acoustic insulation, fire insulation, power stations, petrochemical plants, motor vehicles, horticulture, air-conditioning duct work and so on. To correct an earlier figure, we would say that foil represents about 11 or 12 per cent of the total market. The remaining 30 per cent of the industry is made up, we believe, of about 30 main manufacturers of various other insulation products. Prior to the HI Program, we estimate that insulation into ceilings of existing homes represented about 10 per cent of the total market. We believe that, with the introduction of the HI Program, that is now about 50 per cent.

The industry is highly competitive, as I am sure you have gathered by the submissions so far today. Unfortunately, in Australia we do not have an independent body such as the BBA in

Britain or the CSTB in France or BRANZ in New Zealand to investigate and rule on product claims in the building industry, so the industry is constantly embattled with misleading claims, legal action and scientific challenge. The development of Australian standards for insulation took about 10 years and had wide representation, with representation from scientific groups, the Housing Industry Association and various other bodies. That standard came into place in 2002 and was amended in 2007 with appendix K, which was referred to earlier.

ICANZ disagree with many of the claims being submitted to the honourable senators today by our competitors. We do agree, however, that a proper, independent, building research facility is needed in future to investigate claims independently and to give some direction on where we go. Given this background of our industry, I hope you can understand, and we believe, that the government, and the departments in particular, have done a remarkably good job in setting up the process and guidelines and that, without doubt, the guidelines now are the strongest the industry has ever seen—and this is not just since these deaths have occurred. In our submission, we expressed our belief that the Energy Efficient Homes program has been extremely successful in terms of the benefits not only to the householders but to the economy, and we referred in our submission to an earlier study we did using a macroeconomic model used by the government that explains benefits that far outweigh even the savings to the householders. So, in terms of value back to the householder, this has been outstanding.

CHAIR—Mr D’Arcy, I note that you are reading from a prepared statement. Do you wish to summarise the balance of it and table the document?

Mr D’Arcy—Yes. I could say that we unfortunately believe that many of the issues that have been raised are small and have been extrapolated out and that the media has taken hold of that and given a totally false picture, in our view, of what, in perspective, is going on in this program. We would like to address that later. We note that in the government submission there were only 0.62 per cent of complaints, meaning that less than 7,000 people have complained, which means that well over a million people have not complained. We believe that there are many happy, contented people who are more comfortable and have got value out of this program, but nobody has bothered to get their view on whether this program is worth while.

I would summarise by saying the householders have not taken up the responsibility that they should have under this program where they are getting a free \$1,600 or \$1,200, and I think that some of the inspection and care needs to be put back to where the product was signed off. This whole program is multilevel—supply, installation and signing off. It is impossible for any government department to be at every point at every time. I think the mechanisms they have got in place through the desktop auditing, through site inspections and through registration are where you are going to get your statistics as to how well this program is or is not going, because they have the best database, not through observations of a pack of batts here and a pack of batts there.

I would also say that any early reduction in this program would have massive effects on the industry. Right from day one when Kevin Rudd said, ‘Here we go; we want industry to operate in good faith,’ industry has gone through an enormous amount of redevelopment and investment, not only in capital but in working capital, people and training, and we are now geared to finish the balance of this program. This program is a stimulus package. It was meant to basically preserve jobs that were leaving the industry as the building industry turned down and to create opportunities for many new jobs. If this program came to a sudden end, we know that not only

would the manufacturers feel pain but those employed in the industry would no longer have employment. That is quite apart from the benefits that over a million people who have not complained are thoroughly enjoying, and another million should be doing the same thing if this program is taken through to its completion.

CHAIR—Thank you, Mr D’Arcy.

Senator McEWEN—Thank you, Mr D’Arcy and gentlemen, for your submission. I will follow on from what you just said then about talk of the early closure of the program and the devastating impact, as you called it, that would have on the industry. Can you just elaborate on that? In particular, you also said that the program was intended to sustain existing jobs and to create new jobs. If the program were to close ahead of time, can you elaborate on what effect that would have on employment in the sector?

Mr D’Arcy—Certainly. Do you mind if I defer to Mr Tannous, who is actually in manufacturing. He will be able to give a more accurate answer.

Senator McEWEN—Of course.

Mr Tannous—We have estimated as an industry that over 8,000 new jobs have been created to fulfil the requirements of the package. If the program were to come to an end, a lot of those people who have set up will definitely be out of business because their sole business was to fulfil the requirements. So you will find people who have invested in warehousing and trucks will not have a job at all. In terms of manufacturing, the program did allow us to retain a lot of shifts and a lot of people in jobs. We will definitely, as manufacturers, have to scale back because the demand will be down. To be honest, I think that the 8,000 jobs we have estimated is quite conservative. If you had a look at the register at the moment, you would probably say there are 8,000 registered installers. If you have one or two associated with each of those registered installers, that is 16,000 to 20,000 people that I would say are probably employed in the industry, not the 8,000 that we conservatively quote. A lot of people would be out of jobs.

Senator McEWEN—Mr D’Arcy, you said there would be potential for another million homes to have insulation installed under the current program. Mr Tannous, do you know whether those million homes would mean an increase in employment in the sector or would it be steady as we go?

Mr Tannous—It will be steady as we go.

Senator McEWEN—Okay, so that is 8,000 jobs at least that are supported by the program. Mr D’Arcy, you also mentioned that a number of the issues raised during the course of the inquiry today are small and extrapolated. To paraphrase what you said, the media has given a false view of the program. Can you elaborate on that? What issues are you talking about?

Mr D’Arcy—I will, if only to say that we have been reading the media over lunch, so I am talking of the here and now. Again, I will defer to Ray, who has made a short summary of those things.

Mr Thompson—I would just like to address a claim that was made earlier which we have noticed has been taken up by the press, a claim of 30 to 40 per cent of houses and product being noncompliant. We estimate that we supply 68 per cent of the Home Insulation Program. We know all our products are compliant. That statement means that every other product that is going into this program is noncompliant. That is clearly nonsense.

Senator BIRMINGHAM—Not about it being installed properly.

Mr Thompson—It is noncompliant in terms of product testing, which is what the claim was about. What I am addressing is the product testing compliance, which is what was being discussed about the product not achieving its R-value. The issue was surrounding the Chinese imported product. We estimate that around seven per cent of the total home insulation product is Chinese product. We are not awash with Chinese insulation. Our estimate is seven per cent.

Senator BIRMINGHAM—What about the US?

Mr Thompson—There would be a larger percentage from the US. The vast bulk of the US product is imported by us.

Senator BARNETT—What per cent?

Mr Thompson—I do not know what the percentage is. I would have to defer to Mr Tannous.

Mr Tannous—At one stage we probably got up to about 25 per cent of what we supplied in the market being imported.

Senator McEWEN—Are you confident that the material you imported from the US complied with Australian standards?

Mr Thompson—Before we did that—and we had to do that because the demand for the program was unbelievable, way beyond our expectations; this is a hugely popular program—Mr Tannous and our operations manager flew to America and inspected the plants. These plants are our partner. They are our technology supplier. They are the largest insulation manufacturer in the world, Isover Saint-Gobain, from France. They are actually the best plants in the world. We got their samples, we flew them over and we tested them in our own NATA certified laboratory. We are one of the few laboratories in the world to be certified to test the Australian standard AS/NZS4859 part 1. We tested the product rigorously before we even placed an order. We are 100 per cent sure that the product from America is compliant. The American product is world class.

In terms of the Chinese product, we have tested a number of the Chinese products. We go out to the market and test product. To comply with the standard, you cannot test product by sampling it from a roof. That is noncompliant testing. You also cannot test product by not having the packaging, because the labelling is part of the standard. The only way that you can test compliance to the Australian standard is to have a pack. We bought packs randomly from the marketplace and tested Chinese product. Of that Chinese product, around 30 per cent failed to achieve the R-value. On my calculations, that means that the percentage of potential noncompliant product in the HIP, Chinese product—based on some random testing—is two per

cent, not 30 or 40 per cent. Two per cent is too much—commercially we do not want any Chinese product here—but the reality of our trade is that that is allowed. The issue is that they need to meet standards.

Obviously, whenever we get test results we submit them to the government, the government takes actions and follows up with the relevant parties. There are noncompliance issues regarding traceability on labelling, and a higher percentage do not have the compliant traceability requirements, which means you must name the actual manufacturer and that must be on the packaging. That is part of our standard. A lot of them have not got that, but they are addressing—

Senator BARNETT—What percentage?

Mr Thompson—It is a bit hard to say. Maybe another 20 or 30 per cent of the product is needing to tidy up their labelling requirements for traceability. In terms of delivering the R-value, in terms of energy saving, obviously that is not an issue. It is an issue in terms of compliance and it is an issue in terms of, if that product was also not achieving its thermal performance, then there needs to be traceability to go back to the manufacturer. We have had representations from the Chinese insulation manufacturers association. They have flown people up from Australia to try and get their standards in order. So there is a good intent from the Chinese side to try to make sure that they comply with the standard, but that is the result so far. I would just like to reiterate that, from our estimate, the figure of 30 to 40 per cent of noncompliant product in the marketplace is complete nonsense.

Senator McEWEN—Have your members always imported some product?

Mr Thompson—We have imported products occasionally. In fact, a few years ago the reverse happened and we supplied a lot of product to America because the Americans were short. We supplied our partner in America with product and we employed people in Australia because of it.

Senator McEWEN—You also said, Mr D’Arcy, that you disagree with many of the claims of competitors. Are there any other competitors’ claims that you would like to address while you have the opportunity? Perhaps you could also the address the issue of formaldehyde.

Mr D’Arcy—I will certainly address the issue of formaldehyde. Most of the issues that were raised are of a very technical nature. Personally, I do not think you want, nor are we prepared, to go through the differentiated equations of why we might have a different view. But I want to put on the record that we do not agree with some of those assertions. Some of them are technical; some of them are against our association. There are conspiratorial criticisms, as well as technical criticisms, of our association.

Senator McEWEN—It is a competitive industry.

Mr D’Arcy—It is a very competitive industry. In terms of locally manufactured products there is no issue with formaldehyde. The levels of formaldehyde are trace levels. If they are not undetectable they are at least 10 to 20 times below any threshold level recommended by Safe Work Australia. It is not an issue; they are not toxic. They are perfectly safe to handle. With regard to the headline in the newspaper ‘Toxic batts’ I have not seen any tests of imported

products that have taken levels so high that they would be classed as any risk to health. The claim is made, but where is the evidence? I have not seen it, and I would be very surprised if that were the case.

Mr Thompson—I would just like to add to that. There are actually trace elements of formaldehyde in all types of products. It is in your clothing right now at about the same level.

Mr D’Arcy—Everybody who has sat in front of you today has a trace element of formaldehyde in their clothing.

Senator McEWEN—It is also in foil and cellulose et cetera?

Mr D’Arcy—By the way, it is harmless.

Senator McEWEN—I figured that if I had survived this long—

Mr D’Arcy—As we have measured it, it is harmless.

Mr Thompson—With all insulation products it is insignificant.

Senator McEWEN—You said that there is no formaldehyde in Australian products, except for—

Mr D’Arcy—There is a trace. Of course, there are minuscule levels, but you need very sophisticated equipment to find it. We get it tested independently and there are other reports published by laboratories where they do their own testing, which agrees with our tests.

Senator McEWEN—Finally, you said that most householders—one million of them—are happy with the program. What is your take on what installers and manufacturers and others in the supply line think about the program, because we have heard evidence today that it is a catastrophe. In your view, what is the general take?

Mr D’Arcy—With regard to the changes that have been made to the program I do not think sufficient notice has been given for people to adjust to that. As the program developed it became a work-in-progress and it was always meant to be that way. The administrators started with a clean sheet in an industry that had no regulation and no standards. On advice from the industry they introduced basic standards and training procedures which, over the last 10 months, as issues have been raised have become more comprehensive. There are possibly consumers who are concerned about insulation and about who is knocking on their door, because most of the media reports have reported unsavoury practices of doorknocking, seeking sales, and instances of people not doing their job in compliance with the standard that is mandatory. It was set from day one. The accidents and fires and other things that have tragically occurred, again, can be backtracked to those basic standards not being followed.

Senator McEWEN—What role do other areas of government have in ensuring that those sorts of standards are controlled? What role do the states have?

Mr D’Arcy—The federal government has limitations, as I understand, in its power to take action. For instance, if somebody believed they were overcharged or the product was not installed they pretty much have to go back to the fair trading legislation in their state. If there has been fraud on the federal government in terms of claiming, I guess they have the Federal Police to track that back, and I assume they are doing that at the moment for cases. In terms of health and safety, there have always been health and safety regulations between employer and employee that are state based responsibilities and covered by WorkCover in those states. In those sorts of areas as well it is difficult to know where the territory stops. That would probably have to go back to state authorities and state police versus federal police, depending on the issue. It is a complex program to administer not only going into it—from the product that goes into it through to the installation through to the signing off—but also coming out the other side. If there are complaints, it becomes complicated in terms of how to handle that as well. Does that answer your question?

Senator McEWEN—Yes. Thank you.

Senator BIRMINGHAM—Gentlemen, thanks for your time and evidence today. Everybody, as you have highlighted, comes to these inquiries with their own vested interests and positions and puts their own positions from the perspective of their own industry. You have highlighted the evidence of those who have gone before you in that context. It is safe to say from the data you have given, though, that the two businesses you represent would be the two largest single beneficiaries of this program to date, wouldn’t they?

Mr D’Arcy—Yes.

Senator BIRMINGHAM—In 2007 you conducted a Deloitte study into potential rebates. You modelled, you say in your submission, a \$500 rebate to be operated over three years. Did you model any other figures?

Mr D’Arcy—We did.

Senator BIRMINGHAM—Did you model higher figures?

Mr D’Arcy—We modelled a total insulation program of the 2.7 million homes. We had this scenario: if the government regulated to have all homes insulated over a seven-year period, what would be the impact on the Australian economy? We have provided those figures to government. That scenario is very similar to this scheme. It is run over seven years, but the same number of homes are insulated; therefore, the same benefits would accrue over that time, adjusting for the timescale.

Senator BIRMINGHAM—That was based on a regulatory, mandatory approach?

Mr D’Arcy—That is correct.

Senator BIRMINGHAM—Did you model higher rebate approaches than the \$500 rebate?

Mr D’Arcy—No, we did not.

Senator BIRMINGHAM—Why \$500 as the max?

Mr D’Arcy—At that time the state rebate programs that had been running for some time were running at anywhere between \$200 and \$350—around about that—and they were getting very minimal uptake. We knew that the reason was the incentive was not high enough. When we modelled the \$500, we assumed that you would get only a 28 per cent uptake; that is all that level would attract.

Senator BIRMINGHAM—You assumed, or was that what the modelling indicated?

Mr D’Arcy—That was the assumption we put in. Twenty years of past rebates, right back to the 1970s, had shown us that, as you move up, going up another couple of dollars does not make much difference to the uptake. So that was the assumption we put into the model. That is our assumption: that it would have to be at least \$500 to get a 28 per cent uptake.

Senator BIRMINGHAM—At that time the average cost of retrofitting home insulation, you say, was between \$1,200 and \$1,500?

Mr D’Arcy—Correct.

Senator BIRMINGHAM—Did you recommend to government or did government discuss with you the \$1,600 rebate figure before it was announced?

Mr D’Arcy—The government had our study as a reference point. It was provided to the Howard government when they were in federal government. That then was available to anybody, really, who had an interest in this area. The current Labor government had our figures, had our study and had our recommendations. By the way, that was based on glass wool insulation products installed into homes and it was based on 2006-07 prices.

Senator BIRMINGHAM—So the government had your study that modelled a rebate of \$500 but did not model any higher rebates than that. It looked at regulatory approaches and other approaches but did not look at higher rebate modelling than the \$500 figure.

Mr D’Arcy—We did not do one.

Senator BIRMINGHAM—No, you did not do one. Did the government talk to you directly about putting in place a \$1,600 rebate amount prior to this program being announced?

Mr D’Arcy—No.

Senator BIRMINGHAM—So there was no direct communication then. You say the current rate of completions is 5,000 a day?

Mr D’Arcy—Roughly 4,500 since the rebate became formal.

Senator BIRMINGHAM—In your submission you have said 5,000. At 4,500 does the same statement apply, that in fact you will insulate that available housing stock before the scheduled end of the program?

Mr D’Arcy—If you have a look, from February to July—five months—74,000, if I am correct, were insulated. From 1 July to pretty much the end of January about a million homes were insulated in seven months, if you look at the numbers.

Senator BIRMINGHAM—So it would be 2.8 million if you get a million per six months?

Mr D’Arcy—Actually, the number now is 1.9 million to be insulated. That is the target of the program. We are looking at less than 900,000 homes to be insulated over the next two years. If you have insulated a million homes in seven months, I do not think it is unreasonable to suggest that you could do less than 900,000 homes in the next 12 months, which would be a year short of when the program was to finish.

Senator BIRMINGHAM—What will happen to the industry and to those 8,000 jobs that you spoke of before when you get to the end of that period of time?

Mr Tannous—What you will start to find is that a lot of those jobs will become difficult to find and people will start to find themselves other employment, as we are starting to see now in some of the areas. In terms of manufacturing, there is the introduction of six-star insulation and hopefully we are starting to see the market pick back up again and that will take care of the manufacturing. Hopefully on the manufacturing side, with the jobs the manufacturers have put on, we will not be disadvantaged. In saying that, we would really want the program. I do not see the market picking up at the moment. I am not an economist; I just look at the housing stats and I think ‘Oh, they look pretty ordinary.’ So we would want the stimulus package to last at least another 12 months so that we see the market pick up again.

Senator BIRMINGHAM—All of those insulation businesses that are out there at present are basically the result of a big sugar hit to the sector and to the economy. It is certainly providing some benefits in a lot of homes. Nobody is disputing there are a lot of benefits to insulation but those businesses will all fade off over a period of a couple of years because this work is being undertaken so rapidly.

Mr Tannous—They will go back to the kind of employment they had, which was in the housing industry. A lot of them are carpenters and bricklayers. So instead of being unemployed because there were no houses being built we believe they will get back into that industry.

Mr D’Arcy—There is a second element to that, too. There is certainly a commitment to have mandatory disclosure of energy performance, both in commercial buildings—that comes in this year—and in residential buildings, next year. This program only covered areas that had no insulation or what was classed as negligible insulation, which is less than 25 millimetres—in other words, there was no insulation. If the mandatory disclosure program is successful and you want to have your home rated from two star or 1½ star to four star and compete on the market—bearing in mind that the new homes standard now is six—the first thing you would do would be to insulate your ceiling. For those homes that had insulation but much lower levels of insulation, if they wished to upgrade that would be the easiest and most cost effective renovation they could do. So there will be added work coming through if in 2011 all homes that are sold have to have an energy performance rating. I do not know off the top of my head how many homes are sold every year, but if the housing stock turns over every seven years there have got to be a million.

Hopefully that will give some hope to the Green Loans assessors that are looking for more work at the moment, as well as the insulation installers that are employed at the moment.

Senator BIRMINGHAM—It will be interesting to see how it is received by households, but that is a different matter. I want to touch quickly on the safety issues. You have placed a lot of emphasis on the standards, regulations and audits that have been put in place over a period of time throughout this program. Do you sit on the working group that was established by the department for the implementation of this program?

Mr D'Arcy—I sit on the insulation roundtable and I sat on the training workshop group.

Senator BIRMINGHAM—And you were appointed from day one to those bodies?

Mr D'Arcy—Yes.

Senator BIRMINGHAM—And the first meetings of them occurred when?

Mr D'Arcy—Our first meetings occurred with the department on the day of the announcement.

Senator BIRMINGHAM—Your first meetings were on the day of the announcement so that was the first meeting of what became the working group or what was at that stage the working group?

Mr D'Arcy—It was a meeting of the department with industry representatives who were invited to attend the announcement.

Senator BIRMINGHAM—You have attended all or most of those meetings?

Mr D'Arcy—Most of them.

Senator BIRMINGHAM—During the course of those meetings, we understand issues were raised about safety standards and the qualifications of those involved in the installation of home insulation. Is that your recollection of the meetings that you attended?

Mr D'Arcy—Yes.

Senator BIRMINGHAM—When do you recall those issues first being raised?

Mr D'Arcy—The first set of standards that went into the draft on day one were that we recommended to the government that in the existing homes market they were starting with a fresh sheet. There were no standards; there was no training. We recommended that two basic standards be introduced: that was for installation of product, which was AS3999; and for the product quality—that is ASNZS4859.1. Along with that, because we had been working with state governments, and particularly Victoria, we had helped the Victorians to develop a training program for their particular rebate for insulation, so to take part in the supply and fix in Victoria you have to have accreditation and training. ICANZ has been trying to get other state governments to adopt the same model because we could see in that area where they were giving

out taxpayers' money that at least there should be some compliance with the standards and some training. So it started out as a very basic one-day training package—which was one day more than they had had—and it covered the standards and proper training.

From that, of course as programs started to develop, other issues came up. Rather than adopt that model, the government consulted with other government departments and said, 'We really need national accreditation.' The program running in Victoria would have been difficult to get national accreditation for because it was not thorough enough. The first thing they added in was the occupational health and safety training that was required so that added another day onto the program. Then as issues arose, the training was amended. This was always meant to be an evolutionary program. The government said, 'If you raise the issues and they are relevant, we'll address them and we'll put those amendments, where necessary, into the program.' So today you have a far more robust program—it is the most robust program of any we have ever seen in the insulation industry—and for that I think the government has done a good job.

Senator BIRMINGHAM—When did you make your recommendations about the two standards and the need for a training program?

Mr D'Arcy—Day one.

Senator BIRMINGHAM—February 3, 2009.

Mr D'Arcy—That is it. My training program was a one-day program. It was really transplanting what was already in existence in Victoria, and the standards were the standards that would apply to new buildings in terms of product and installation that did not exist in the existing homes market at that time.

Senator BIRMINGHAM—Yet it was a long time before we had a mandatory training program and registration in place. Do you believe the government acted fast enough to implement that?

Mr D'Arcy—Once the government got other industries involved—they bought in a wide consulting group from the HIA, the MBA, training bodies and those sorts of things—managed to sort out what was and was not needed and what could be effectively put into place, I think they worked relatively quickly over that period of time to get all the sign-offs, tick-offs and drafts through.

Senator BIRMINGHAM—The need for a training program that you recommended was on the basis that you understood that there were risks that could happen and it could damage the reputation, of course, of the industry if this program was not implemented appropriately. Is that a fair summary of your motivation for recommending a training program?

Mr D'Arcy—Yes.

Senator BIRMINGHAM—Okay. You then saw an enormous surge over a period of time, but particularly from 1 July, in sales and in installers. Did you have concerns during that time that installers who were coming into the industry lacked the skills and the capacity to do the job properly?

Mr D'Arcy—Of course. That is why we recommended a training program.

Senator BIRMINGHAM—You had those concerns from day one?

Mr D'Arcy—That is right.

Senator BIRMINGHAM—Then as time went on you saw those concerns materialise. You saw the reality of those concerns. Installers did come into the industry and start the job of installing the products of companies you represent into homes in a manner that concerned you.

Mr D'Arcy—Our particular members also had their own training programs through which they trained their own supply-and-fix contractors, and those programs were running in parallel with that.

Senator BIRMINGHAM—They are not mandatory though, I assume, for people who purchase the products.

Mr Tannous—For brand distributors, yes. We have what we refer to as core distributors and we make it mandatory for them to go through a training program and—

Senator BIRMINGHAM—Are they the only people who sell or install your products?

Mr Tannous—No. They are the only ones that we recommend to install our products, but there would be other people.

Senator BIRMINGHAM—But others do install your products as well?

Mr Tannous—Yes.

Senator BIRMINGHAM—I will make this my last question. Did you, in subsequent meetings of the working group after 3 February, ever express to the government or to members of the working group an opinion that the number of installers who were ill-equipped to do the job was becoming a concern, that there was a need to hasten the implementation of a training program and to make it mandatory?

Mr Tannous—No. I attended most of them and I would say no. I do not recall that. A lot of the roundtable discussions were around whether it should be one quote or two quotes. Safety was only raised at the first few—correct me if I am wrong—

Mr Thompson—It was straightforward.

Mr Tannous—It was straightforward. The training was put in place. It was not raised at the other meetings that I attended.

Mr Thompson—There was a mandatory training program which was better than what we have ever had from 1 July, so a lot of the ramp-up happened really after that.

Senator BIRMINGHAM—So what you are saying is that, ‘There was a big ramp-up but, no, we weren’t that concerned because the training program was in place.’

Mr D’Arcy—It was all satisfactory at that stage.

Mr Thompson—Yes. We thought that was a reasonable training program. It was what we had been proposing. That was for our products. We cannot speak on behalf of other products.

CHAIR—My question is probably a view. From your comment earlier on taking issue with the allegation that 34 per cent of product is noncompliant, I gather from what you are saying that faulty installation cannot affect the R-value of a product. Going back to what you said about having to test this in a package, that the R-value is the R-value when it is in a package and you cannot test the R-value in any other way, does that mean therefore faulty installation cannot take away from an R-value? Is that your evidence?

Mr Thompson—The latter part of your question is not right.

CHAIR—Okay, can you deal with both aspects?

Mr Thompson—You are correct: you cannot test the R-value in situ. The bulk insulation is subject to what is called a material R-value requirement. That is a laboratory test. It is set up that way so that we can ensure consistency of performance of product. In terms of system R-value, that is based under the standard on a calculation. There is no in situ testing. It is a very, very difficult thing to do.

CHAIR—So, call me silly—I am a lay person—

Mr Thompson—If your question is: can faulty installation affect the R-value?

CHAIR—Yes!

Mr Thompson—Absolutely! But it is not a product compliance. It is not subject to a standard. 4859 does not cover installation.

CHAIR—So you disagree with the claim that 30 to 40 per cent of product is noncompliant but, if the claim were that 30 to 40 per cent of product once installed is not compliant, you would not be taking issue with that?

Mr Thompson—Oh, absolutely.

CHAIR—How would you take issue with that?

Mr Thompson—As far as I am concerned, the vast majority of our product has been installed by people who are trained. I cannot speak on behalf of the other products but I am sure they would also say that the vast majority of their product is being installed by people who are trained and who do the right thing and that the product is compliant to the standards. There is a percentage, sure, which is going to be noncompliant. We do not know what that figure is because we do not go to people’s homes and you cannot test products. We do not know the answer to

that. My experience in the industry would say that there is no way in the world that 30 to 40 per cent would be installed in a noncompliant way given that the vast amount of the product going in has been installed by experienced Australian installers.

CHAIR—Nonetheless, you are conceding that bad installation could affect the R-value of the product.

Mr Thompson—The thermal performance, definitely.

CHAIR—But you are not prepared to substantiate or otherwise the 30 to 40 per cent because you say we do not know what we do not know.

Mr Thompson—Based on my experience in the industry, which is 30 years, I am saying that would not be a figure that I would support as being hypothetically likely.

CHAIR—Okay, but noting that nonetheless there could be faulty installation that affects the R-value.

Mr D’Arcy—I would like to add to that. I would suggest that if you go back to the thousands of audits that have been done by the government, that would give you a real figure not based on one or two sightings. I do not know what those results are but if you could get details of what those auditors have found, that should be able to tell you whether—

CHAIR—Some sort of blueprint.

Mr D’Arcy—Well, it would be a far more accurate figure than what has been bandied around here today.

CHAIR—Mr D’Arcy, you said in your opening statement, and I am paraphrasing here, that the householder has not taken the responsibility they should have and that we should put some of the responsibility back. Can you expand on what you were talking about?

Mr D’Arcy—I think for \$1,600 or \$1,200 there is very good value for the householder.

CHAIR—Very.

Mr D’Arcy—For instance, if you had a problem with whether or not the products are compliant—just the products before they are installed—the householder has to sign off that they are. You now have an approved product list up on the website. I do not think it is unreasonable to ask the householder not only to have on the quote the brand name of the product they are putting in and the stated R-value, but also to have to reference the website to see whether that product has been run through the administrators and they have ticked it off as having all the right documentation and all the right testing, and also at the same time to check whether the installer is actually on the registered list.

CHAIR—So at the moment the householder pays an application fee, they apply and then after that—

Mr Thompson—No, that is not correct.

CHAIR—No? What happens?

Mr Thompson—The householder rings up—

CHAIR—So it is not even that?

Mr Thompson—or is contacted, or is doorknocked.

Senator BIRMINGHAM—So the householder unlocks the front door and shows them where the manhole cover is.

Mr Thompson—On the form that they sign—

Mr D’Arcy—On the form it is just a quote for batts. I think that should be more explicit about what batts, so that that can be checked. Then, when the work is done, I think that the householder should actually look on the work order form which says that product, with its brand name and R-value, and should make sure that all the packs—because they are there when the job is done—have got the similar branding, similar R, that are listed on the government website, because that is what it has been established for. And, by the way, they should check out that the installer is still registered because some of the media have said, ‘Here is a person that has been deregistered and they are still doing work.’

CHAIR—Are you saying that at the moment householders have all care, because it is their home, but no responsibility?

Mr D’Arcy—They do have to sign off the order, which means that they in theory are responsible that that job is done properly and the right products are installed. But I am saying that now that there is an approved product list, there is a published registration list of those people that are still in it, I think the householder should take more responsibility to help this program be successful.

CHAIR—What if you flicked it around and had the householder paying the installer? Mums and dads will not like that you have the householder paying the installer and your industry, and then the householder seeks the rebate.

Mr Thompson—That was the case from 3 February to 1 July.

Senator WORTLEY—Do you have the figures on how many households were having insulation put in on an annual basis prior to the commencement of the program?

Mr D’Arcy—It is difficult to know, but our guesstimates are somewhere between 60,000 and 70,000 per annum.

Senator WORTLEY—Is that in Australia?

Mr D’Arcy—Yes. If you took the 70,000, that is about 192 jobs a day.

Senator McEWEN—Is that retrofitting?

Mr D’Arcy—We are talking retrofitting—apples for apples.

Senator WORTLEY—So 70,000 homes in Australia per year—prior to the commencement of the program—were having insulation put into their homes and there were no mandatory regulations or safety requirements for that installation. It is only since this program has been put in place that the issue has been addressed in relation to safety, training and installation.

Mr D’Arcy—Correct. The reason for that is that the value of the product being put in was considered a minor renovation. To start getting serious about regulations, I think you need to be around \$10,000 or \$50,000 in value to then have to go through proper channels and paperwork and standards. Having insulation put in your home could often be done for under \$1,000, so it flew under the radar completely.

Senator WORTLEY—Can you tell us about the cost-effectiveness of energy savings from insulation?

Mr D’Arcy—In 2007, when we put that together, we said an all-in average—bearing in mind different size houses, different climate zones—on the basis that is clearly set out in our analysis, was \$220 per house. Since energy prices have gone up 15 per cent at least in that time, we are looking more like \$250 saving per annum, as an all-in rule of thumb per house.

Senator WORTLEY—I notice in your submission that you talk about fires involving downlights and insulation having been an issue of concern for the industry for some time. You say that it had not been addressed prior to the implementation of this program and, further, that ceiling fires and electrocution occurred prior to the EEHP being put in place.

Mr D’Arcy—Did I say electrocution had occurred? I did. I was probably referring to New Zealand. There were cases two years ago in New Zealand for retrofitting floor insulation, a similar proposal, but that was a situation that was addressed under the New Zealand scheme.

Senator WORTLEY—I have some information here that for insulation to be installed, a letter or an email was sent around to all installers stating that they had to put in place the labelling or packaging of the particular product that they put in the home and they also needed to leave that with the homeowner—which was verification of the fact that this was what they had put in their ceiling—and they signed off on that and left that. And that has been happening since December 2009?

Mr D’Arcy—I believe so.

Mr Thompson—It was reasonably common in the industry before this Home Insulation Program.

Senator WORTLEY—There was reference earlier to insulation being in a warehouse somewhere and not having any labelling on it. Could that insulation be for some other purpose?

Mr Thompson—It is possible.

Senator WORTLEY—Because if you need to have a label and a sample left in the home, then it would need to be on the insulation packaging to begin with.

Mr Thompson—For a start, the answer is yes. But also, to be compliant with the standard, you have to have a label on the packaging.

Senator WORTLEY—Right, so that could be for some other purpose.

Senator BARNETT—In terms of the meetings you have had with the round table and with the minister specifically, did you receive any minutes from those meetings?

Mr D'Arcy—All but one. When the key leader of the administrative team changed, there was a changeover in personnel.

Senator BARNETT—Who was that?

Mr D'Arcy—I think Malcolm Forbes changed and Catherine Pennington—

Senator BARNETT—You can take it on notice.

Mr D'Arcy—Sure. Effectively Aaron Hughes now runs the program.

Senator BARNETT—How many meetings would you have had last year?

Mr D'Arcy—I think one every couple of months. I do not have the numbers.

Senator BARNETT—So you received minutes of the meetings. Could you please forward a copy of those meetings on notice to this committee.

Mr Thompson—Sure.

Senator BARNETT—You referred in your earlier remarks in response to Senator Birmingham to the cost of the subsidy. You just said there were about 60,000 to 70,000 per year prior to this program kicking in. So based on the current statistics of the last 12 months, would you say that you have now got about 14 to 15 years or more in the one year in terms of jobs per day?

Mr Thompson—Sure. That is part of the submission. I have put a little graph in there to show that under business as usual I estimated it to be close to 2050 when a similar amount of homes would have been insulated and we would have covered off those uninsulated houses.

Senator BARNETT—Understood. Your submission also says on page 17 that when the program comes to a conclusion:

This will put at risk future manufacturing jobs and the justification for further investment in manufacturing capacity.

I think Mr Tannous said that earlier. In terms of the subsidy, you have done your research and you have got some accounting experts to help you on the \$500 subsidy to work out what impact that would have on the industry, but of course the government has started with a \$1,600 subsidy and then cut that back, as we know, to \$1,200. So what is your assessment of the \$1,600? What impact did it have and do you think it was too high and should have been \$1,200 initially?

Mr D'Arcy—For a program that was put into place as a short-term stimulus measure over 34 months, I think it required a very large stimulus. We did not think \$1,600 to get people interested was unreasonable at the time. Now that the program has advanced more rapidly than any of us envisaged it would, cutting it back to \$1,200 is perfectly reasonable. You are looking here at theoretically getting 100 per cent uptake of uninsulated homes. If you were aiming to get 30 per cent of uninsulated homes, you would offer a different financial amount. No-one else in the world that I know of, apart from the UK, has ever attempted anything as ambitious as this. If you want to achieve that in 34 months, I think that was the reason for the high level. Plus there is the fact that it was up to \$1,600. It was not \$1,600; it was up to \$1,600. I think the government actually budgeted on a \$1,200 average installation. You would have to ask the department about those figures, but I understand that the average was meant to be around about \$1,200 but they put up it to \$1,600 because there are particularly difficult jobs and they wanted to try and get them all in the one net.

Senator BARNETT—Is it fair to say that most consumers paid nothing? Was it free essentially for most households?

Mr D'Arcy—I would say the majority of people under the \$1,600 rebate would have paid nothing.

Senator BARNETT—I just want to go to the issue of imports from overseas. You indicated at one stage that an estimated 25 per cent of the product was being imported from overseas. Can I just take you back prior to the program. What percentage, if any, was imported from overseas? I assume we were relying on Australian manufacturers and therefore none, but can you clarify that to start with?

Mr Tannous—There probably would have been about five per cent of imports in Australia.

Senator BARNETT—Prior to the program?

Mr Tannous—Prior to the program.

Senator BARNETT—Where did they come from?

Mr Tannous—The bulk of them would have come from Thailand.

Mr D'Arcy—No, Malaysia.

Senator BARNETT—So Thailand and Malaysia, prior to the program commencing?

Mr Thompson—And China.

Senator BARNETT—Right. So, once the program commenced, you had the \$1,600 rebate, a very big influx like 16 years in one, kicking in. Obviously the Australian manufacturers could not cope with the demand and they imported. I just want you to clarify for the record that, based on your advice and evidence, there was some 25 per cent of—

Mr Tannous—Of what we supplied at a point in time.

Senator BARNETT—Which point in time was that?

Mr Tannous—It peaked for us around October or November.

Senator BARNETT—What would it be now, for example?

Mr Tannous—Zero. We stopped importing. We still have some stock coming in and some in the warehouses, but zero. We stopped importing back in November.

Senator BARNETT—But you are still getting some in from overseas?

Mr Tannous—No, we have stopped doing that. We stopped doing that in November. We got—

Mr Thompson—It takes six to eight weeks.

Mr Tannous—Yes, we have got six to eight weeks, so we have got—

Senator BARNETT—You have orders—

Mr Tannous—Correct. It is a long supply chain.

Senator BARNETT—What I am interested to know is: how much would be expended? Can you figure it out for a 12-month period—and I am happy for you to take it on notice—for imports under this program?

Mr Tannous—Is that ICANZ members or—

Senator BARNETT—Yes, your members, based on your evidence and your experience.

Mr Tannous—I will just take that on notice, if you do not mind.

Senator BARNETT—Yes, please, if you could.

Mr D'Arcy—I am sure you are aware that the import statistics are not helpful. The import statistics are veiled. They used to show you the port of origin, the port of departure, the value and the tonnage. They are now masked and they are mixed up generally with other glass wool and textile products. We cannot get the department to unmask that to get a real figure, so it is really a guess as to how much is coming in.

Senator BARNETT—I want you to use your best estimates, based on your years of experience and understanding of this industry, to provide that figure for us. I also want you to give us an assessment as to where the product came from and then your view of the product, because we have had evidence to say that a lot of it was noncompliant. You have indicated that some of the product from China was noncompliant and then there were some of the issues regarding labelling—up to 30 per cent of that product was inappropriate or noncompliant. Could you answer that on notice?

Mr Tannous—Certainly.

Senator BARNETT—Thank you.

CHAIR—I call on Senator McEwen to bring the questioning to a very quick close.

Senator McEWEN—Earlier we heard evidence that the kind of insulation material that your members provide is not suitable for tropical areas. I just wondered whether you could address that issue completely.

Mr Thompson—We disagree with that. Bulk insulation is suitable for all climate zones. That has been the case always and is accepted worldwide. We actually manufacture the vast bulk of the foil products made in Australia. Foil is a good additive in combination. Yes, it helps with additional radiation, but the bulk of the work in foil is actually achieved by the airtight non-ventilated airspace that the foil creates, and that itself is subject to high temperature variations. It is quite a complex bit of science to work that out, and everyone has their different views. As we said before, it is a pity in Australia. We would really like to encourage a BRANZ equivalent in Australia.

Senator McEWEN—Could I just have one last question, just out of curiosity?

CHAIR—The senator is behaving badly!

Senator McEWEN—What is fibreglass made of? Is it made of recycled products?

Mr Tannous—It is up to 80 per cent recycled glass.

CHAIR—Mr D'Arcy, on one final thing?

Mr D'Arcy—Yes, I have one question. Will the follow-ups for this be minuted and sent to us? Or are you asking us to write them down here?

CHAIR—The committee will inform you of the questions that you have agreed to answer on notice, and we are in the process of agreeing a time by which we hope you will provide those answers to us. I think it is some 14 days hence. Thank you very much. It is important that we hear from sectors such as yours and arguably a majority that might not have had their views so well ventilated up until now, but that is part of what this process is about, so thank you for helping us.

Mr D'Arcy—Thank you for inviting us.

CHAIR—Thank you.

[3.09 pm]

RENOUF, Mr Timothy, Managing Director, Wren Industries Pty Ltd

CHAIR—Welcome. You have a prop! A very sexy-looking prop, too! Do you have anything to say about the capacity in which you appear today?

Mr Renouf—Wren Industries is a small foil-manufacturing company in Cheltenham, in Melbourne, and I have also been the Secretary of the Aluminium Foil Insulation Association since its inception in 1996.

CHAIR—Are you also appearing in that capacity today?

Mr Renouf—No, I am not, because I think enough of the issues have been covered adequately by the other gentlemen.

CHAIR—So today you are appearing in your capacity as boss of Wren Industries, are you?

Mr Renouf—Yes.

CHAIR—Do you wish to amend your submission?

Mr Renouf—Yes.

CHAIR—Can you draw our attention to the amendment please?

Mr Renouf—You have a single sheet of A4 paper there; is that right?

CHAIR—Yes.

Mr Renouf—I think the language I used in the first sentence is not appropriate. I said:

The fibreglass insulation industry need to be forced to attend the Home Insulation Program—

to answer questions et cetera. I think that is inappropriate language. I think the words should be ‘the fibreglass insulation industry need to be made accountable to the Home Insulation Program’.

CHAIR—Are there any other changes?

Mr Renouf—No.

CHAIR—Thank you. Were you here at the beginning of the day? Did you hear the formalities?

Mr Renouf—Yes.

CHAIR—Thank you for enabling me to not have to repeat them. In that case, would you care to make a brief opening statement?

Mr Renouf—Yes. Basically, we need to determine the best insulation for differing climates of Australia. That is what I have always believed in since our business started in 1992. Currently we have winter based R-value assessment, which my discussion and, hopefully, demonstration will try to make a little clearer. The backdrop to all of this is that air-conditioning demand has increased over the past 20 years in Australia considerably. It keeps on increasing and is the most expensive form of cooling. The case for effective ceiling insulation against high-temperature radiation is paramount. To achieve this, there must be an urgent reassessment of the Australian insulation standard, which I will show you a little bit later. It is my contention and the contention of our foil association, AFIA, that foil insulation is the most effective insulation when used in hot climates and it must be part of the Home Insulation Program. That is the end of my opening statement.

CHAIR—Thank you very much, Mr Renouf.

Senator McEWEN—Mr Renouf, you just mentioned that air-conditioning demand is increasing in Australia. You are not trying to say that that is because insulation is failing?

Mr Renouf—No. I would like to table a series of documents. They are all stapled together. You have them.

Senator McEWEN—When you made that statement, I would have thought that the reason that air-conditioning demand is increasing is that we are building houses without eaves, with no trees and with concrete paths around them.

Mr Renouf—Human nature being what it is—I was going to say that people are lazy—people want to have comfort. They want to have an artificially heated environment. They want to have an artificially cooled environment. They want everything to be perfect. And, when people have a demand for air conditioning rather than just having natural ventilation, which is what most people can survive with, the minute they start demanding more and more and more air conditioning, the demand for the assessment of radiation becomes absolutely critical. That is the level of radiation as it enters through the glass or through the ceiling—through the roof, the ceiling and the walls of a house. If you do not understand what the problem is, none of the energy efficiency regulations will be able to achieve the goals of reducing greenhouse gas emissions and people's own comfort levels.

The horrendous situation that everybody is facing we can go through right now. On the last page of the several pages that I have given you there is just one example. It is the most extreme headline. I hope it is not true. It is the most extreme headline I have ever seen. The *Herald Sun*—

Senator McEWEN—What is the *Herald Sun*?

Mr Renouf—I keep all of these, and this one here is so awful that you just wonder what you are going to do. The *Herald Sun* on Thursday, 21 January—I think most of you will probably

remember it—revealed how you could pay an extra 400 per cent to stay cool in summer. I think that is based, as I read it, on what is going to happen over four years through the rollout of the CPRS, if that does in fact happen. It does seem extreme; it seems hard to believe. But if it were true I would suggest that there would be national panic, with people saying, ‘I can’t afford to run the air conditioner because the power bills are too high, so what are we going to do?’ They would probably go to websites and hopefully learn about the benefits of aluminium foil, which inherently resists radiation. No-one has given you a science dissertation today because we have not really got time to do it, but a layer of aluminium foil, if it is double sided and laid over the top of ceiling joists in climate zones 1 and 2—and that is where the problems are in resolving this issue of the electrical matters, which is not my brief but is being covered by the—

Senator McEWEN—Climate zones 1 and 2 are in Queensland?

Mr Renouf—Climate zone 1 is from Cairns to Port Hedland and climate zone 2 is from about Mackay down to Port Macquarie. In those climate zones you are permitted to use either an R3 batt or a layer of double-sided foil laid or fixed across the top of the joists—that is the quick summary. If the foil insulation has been removed from the program and it stays that way, the best thing that could happen would be that the program came to an end immediately, because the benefits of aluminium foil are absolutely profound. I am sorry if I am sounding a little bit—what’s the word?

Senator McEWEN—Passionate.

Senator BARNETT—Glum.

Mr Renouf—Arrogant? I will use the word—a little bit passionate, maybe a touch arrogant. My father, Ted Renouf—he is still alive; he is 86—in 1953 sold the very first roll of American-made aluminium foil to St John’s Catholic Church, Maroondah Highway, Mitcham. It was a Nissen-style roof; that is how they built roofs after the war. When it was being built, the church was about to have rockwool fitted, and the parish priest, whose name I have forgotten, saw my father’s literature. My father was working for the big American company St Regis, which made bitumen laminating paper at that stage, and they had just discovered in America the benefits of laminating foil to two sides of bitumen paper. The parish priest saw the literature my father had put to him and said, ‘I want to do this.’ He put the foil in the church and they were able to pray and the church was very happy. That was the beginning, when aluminium foil entered Australia, and from that day onwards my father personally got the credit for those first few years for introducing the benefits of aluminium foil to Australia.

To my knowledge, to my father’s knowledge and to the knowledge of everyone else in AFIA, in 50 years there have been no incidents of injury or electrocution. I cannot say it any clearer than that. I do not know, but to the best of my knowledge there have been no incidents. We seem to have all these horrific, upsetting incidents happening since the Home Insulation Program started, and that is being addressed by other people in this room. So it is my contention and the contention of the Aluminium Foil Insulation Association—and Professor Richard Aynsley has articulated this well—that it would be folly in the extreme if aluminium foil is driven off this program. If it is, you had better bring the program to an end now to at least create a level playing field, because these are the properties of aluminium foil: it endlessly resists radiation; the upward surface reflects 97 per cent of heat continuously, it never ends; the bottom surface emits

as little as three per cent. To a large extent it is irrelevant what happens to the top surface—it can be degraded by dust or be piled up with all sorts of things—because the dominant surface is the one facing down. We have had it levelled at us by the people behind us for the last 50 years that ‘foil does not work if it gets dust on it’. That is absolute rubbish. It will have probably a slight diminution in its value, but the bottom is the critical surface that keeps working forever and ever and ever. That is a property of aluminium.

I will give you a quick kitchen physics analogy. If you put a chicken in the oven and you cook it and you wrap it in Comalco foil and then you press your hand against the aluminium surface—let’s pretend this is the chicken here somewhere—what happens? You feel 100 per cent of the chicken’s heat. Is that correct?

CHAIR—It is pretty jolly hot.

Mr Renouf—It is bloody hot. If you bring your hand away one inch, the magic of aluminium commences. You feel nothing because the aluminium only emits or re-radiates tiny amounts of the heat that it was subjected to. The calculation methodologies for working out the R-value of foil and how you work out the R-value of bulk insulations are so different that you just about cannot compare them. The foil insulations are done by a series of mathematical calculations derived from computer programs that were created by that gentleman there, Professor Richard Aynsley, about 10 years ago or thereabouts. It is too difficult a subject to go into. We will not have time for it now.

We will come to the main purpose of my testimony. This is just an example of a small little batt. It does not matter what it is made of. It is fibrous. This is the way all bulk insulations in Australia are tested. They are tested between two temperature plates. It is an American test method. It is called ‘steady state’. The opposite of steady state is ‘dynamic state’. Steady state is a temperature plate set at 33 degrees with a 13-degree plate on the other side. It does not matter which way the plates are. You insert your object between the 33-degree temperature plate and the 13-degree temperature plate. You leave the plates on for four hours and then you record on a little computer screen, or whatever it is, the resistance to the flow of heat. Heat moves by conduction, radiation and convection. I do not really know what the order is—I forget—but they are the three ways that heat moves.

If you double the thickness of the object, as I am doing right now, it is a linear relationship—the batt will be doubled. I think this is an R1.5 batt. I do not know, but I think it is. Therefore, if we double it—in other words, we take it out of the machine, cool down the machine and go like this—the R1.5 batt will be doubled. It will become R3. That is its relationship. If you put one brick in, the brick will have an R-value of 0.18. If you double it, it will become 0.36—a pure doubling of its resistance to the flow of heat. What I find incredibly objectionable—that is probably why I used the original language in the submission—is that, for 50 years, the American test method has been used all around the world. It is an excellent test method for representing products if you wish to retard the escape of heat from the building. Right now we have around six feet of snow around the White House. It is a perfect test for that. But when it comes to designing a building in Saudi Arabia or Ceduna or for vast areas of continental Australia, which all experience hot climates, I cannot for the life of me see why state governments and the people writing building codes in Australia have been so complicit over the years in listening to anything

that the fibreglass industry has told them. I also include Standards Australia, because the Standards Australian permits the American test method to be used.

On the second—I will jump around on a few subjects.

CHAIR—It would help us, Mr Renouf—you are clearly very passionate—if you could keep it relatively simple. We are learning and we are listening. Help us through this, sir.

Mr Renouf—I am sorry. I did not mean to get so heated. I am sorry about that. I will now go to—

CHAIR—Pun not intended.

Mr Renouf—Thank you. Very good. On the submissions there, there is a page that looks like this. It is an example of a fibreglass label. I thought very carefully about bringing it. I thought, ‘This is unavoidable because this illustrates my point.’ This is a photocopy of a fibreglass label. I do not know about all the bulk insulations—it comes from a fibreglass label. I do not know what the other companies do; I have not religiously gone around seeing if everybody else does it. On this page there is one statement which is highly objectionable as far as I am concerned. It is in the public and national interest that it be exposed.

The first four bullet points along the top there, under ‘product performance’, are all correct. We will go down to the third bullet point. Where it says ‘total R-value’—‘total’ means resistance from the roof to the ceiling. ‘Material R-value’ is exactly what the American test method is: it is the resistance from the 33-degree temperature plate to the 13-degree plate. They are totally different creatures. Every building in Australia should be assessed for its total R-value in situ. We will come to that in a minute. The third bullet point says:

The total R-value depends on the installation and may be greater or less than the R-value of this insulation.

It is a fair statement. It sounds reasonable. The next point is:

The material R-value ... represented on this pack was determined at a mean temperature—

—mean means average—

... of 23 Deg C as per the requirements of ASNZS 4859.1.

That is the standard. It is devilishly difficult to understand. Now we come to the part that is unacceptable in my opinion, and in the opinion of several other people, and it should not be allowed to be said:

The material R-value is independent of heat flow direction with the same R value achieved in summer and winter conditions.

That is not true. We have to go back a step. What is the meaning of the 23? The 23 is what the standard requires. For all labelling of all bulk insulation products in Australia you have to label the product at 23 degrees mean. That is what we all agreed. I sat on Standards for five years

representing AFIA, so I do know what I am talking about. That 23-degree mean is the requirement of the standard. It is legal to sell these products. I am not saying anything other than that.

CHAIR—So you are bringing this back to your White House example?

Mr Renouf—The 23-degree mean temperature means we now come to the next point. You do not have 23 degrees as a representative temperature of what the R-value will present at if you say that it will not be the same R-value in winter and summer for the reason Professor Aynsley covered in his testimony. Tile roofs radiate at about 80 degrees centigrade and commonly recorded downward radiating temperatures of 80 degrees centigrade. Old fashion corrugated iron roofs radiate at about 100 degrees centigrade downwards. And probably the Zinalume roofs are bit more sophisticated and they probably radiate at something lower than that. The phenomenon of what then happens in the roof space is that you have got an inferno of heat. It is about 50, 60, 70 degrees inside the roof.

What I am saying is that the American test method was designed for the conditions of where there is snow outside the White House; where you have got an extended winter heating season of say five months of the year where people are in the house and the house has got to be energy tight. Everything is tight; you do not want infiltration. We have the direct opposite here in Australia. We have mild winters in south-east Australia and we have long, protracted hot summers. That means we have to have a better assessment of radiation in Australia. This test method needs to be changed and something needs to be done.

We do have an institution after the poor CSIRO had been gutted. They used to have the biggest test rig in Australia of the American square metre plates. They had a proposition that they put to me personally that they were prepared to elevate the hot plate to 80 degrees centigrade. They could never do it because they were wound out of existence. We need new testing and the University of South Australia can do it. I think they should be given the instruction to commence.

Senator McEWEN—So you are saying, as other submitters have said, that you believe the current standard is not appropriate to the Australian situation?

Mr Renouf—That is correct.

Senator McEWEN—Are you in the camp of supporting re-establishing some kind of independent authority?

Mr Renouf—Absolutely. I wish it could be CSIRO and I do not know how that can be done unless it has a financial injection. A slab of the \$2.7 billion, or whatever the money was, should have said, 'Do it, CSIRO'.

Senator McEWEN—Yes. We know where you are.

Senator BARNETT—Mr Renouf, your evidence in regard to the standards I take it is similar to the evidence of Dr Aynsley, who you have referred to and who is in the room today; and also

the Aluminium Foil Insulation Association in the evidence earlier today by Mr Tikey. Is that correct?

Mr Renouf—Yes.

Senator BARNETT—And that is that the standards are currently inadequate and need to be reviewed and upgraded?

Mr Renouf—They do. The problem is that upgrading the standard is perilous because unfortunately there is a disproportionate voting bloc of the fibreglass industry of six votes that they control on the standard and they will not under any circumstances—I do not have to turn around and ask them because I know their answer—countenance any attempt for high temperature testing of their products. It has been going on for decades. So an external request would have to be made to Standards Australia to override their power bloc vote.

Senator BARNETT—Can't Standards Australia do that?

Mr Renouf—I do not think it is possible. It is not possible because Standards Australia are beholden to the people who have the votes. It is a catch-22.

CHAIR—We can ask them. We will have that opportunity shortly.

Mr Renouf—If you did, that would be wonderful.

Senator BARNETT—Can I go back now to your business, Mr Renouf. What is the impact of the government's recent decision on your business?

Mr Renouf—I am fortunate. I have no exposure in Queensland. I did make some small sales in Queensland to one customer only and he ceased buying in September. So I am hanging on down here and business is just okay. It is not great. I have an unusual aluminium foil product that works in conjunction with this, which I am not here to talk about today. It acts as a radiant heat shield which sits on top of this. I recommend these products every day of my life. I recommend bulk insulation for cold climates on the ceiling. A radiant shield goes on top of it because that is vital, in my opinion.

Senator BARNETT—Just to finish, you have obviously got some strong views about this matter before the committee. Have you expressed those views to the government in the past months? If so, when—

Mr Renouf—Do you want to try years? Sorry, I did not mean to be rude.

Senator BARNETT—I am thinking in particular since the program commenced in February last year. Have you expressed your views since then to the government and, if so, when and what was the response?

Mr Renouf—The short answer is that I am a very small company and running our foil association as secretary is very stressful. Last week was a week I do not want to go through again. No, I have not made a submission to the government because the government is not

interested in listening to whatever we say. It is not interested. Sadly, I have to say that the previous government was equally the same. Government is not interested in anything that AFIA believes in. It is only interested in what Standards Australia and the relevant minister tell it.

Senator BARNETT—You are focusing very much on standards and Standards Australia and the concerns you have about that. I am asking you about any concerns you had with the housing insulation program.

Mr Renouf—The reason why I am making my testimony today is that there is a gateway opening in the terms of reference, which I do not have with me, that there is a failure in the standards. That is what my presentation is about. I believe there is a grave failure in the standards for some of the forms of bulk insulation. That is my point.

Senator BARNETT—Finally, is the program, as you understand it, achieving the objectives that the government is desiring?

Mr Renouf—I am not as competent as the other gentlemen here in this room to answer that. All of them are much more knowledgeable on that than me. But I would say that if foil insulation is removed from the program that would be catastrophic, because when people have foil on their ceilings they know it works. It has been used for 50 years. It works.

Senator BARNETT—Particularly in Queensland.

Mr Renouf—Particularly in any hot climate. In any hot climate you must have aluminium somewhere in that roof cavity. You must, because there would be too much radiation impingement on the fibres if you depended on the fibres.

CHAIR—Before we allow you to reprogram your passion elsewhere, following on from your answer just given to Senator Barnett and coming off part of your opening statement, which were words to the effect that, ‘If you ban it then you better bring the Home Insulation Program to an end now,’ can you please expand very quickly on what you mean by that.

Mr Renouf—Only out of fairness. There are so many problems besetting the insulation industry and the program, and everyone else in this room is much more competent to know about what is working and what is not. I am not. Probably I would say that you should suspend it for one or two months—a minimum of one month—if nothing else just out of respect to the families that have been affected. That would not be a bad start. You could suspend it and everybody could just calm down. You could go through everything and everybody could have their say and just talk about all the issues. There are a couple of other items that I would quickly like to mention, if I may.

CHAIR—You said ‘out of fairness’—fairness to whom and what?

Mr Renouf—Out of fairness to the grieving families of the people who have died. My gut feeling is that I would put them at the top of the list, because they want to see something done. I think it would be nice if they could see that the Senate was saying, ‘We are prepared to do something here,’ because there are too many problems in the program. The safety issue has to be resolved. I am focusing on thermal performance. If you do not fix up this thermal performance

issue we are going to have a horrendous situation of more and more batts going into ceilings. You senators do not know this, but in May this year the Building Code of Australia is going to mandate that R5 batts go into the ceilings of new houses.

CHAIR—Is your expression ‘to be fair’ going beyond the aluminium foil industry?

Mr Renouf—No. The point I am making is that the Home Insulation Program and the discussions we are having here today are irresistibly connected beyond the Home Insulation Program. It is connected also to what happens with new houses. When the program finishes, what will fill the void will be the Building Code of Australia’s minimum R-values for ceilings, walls and floors. Queensland’s climate zones 1 and 2 are about to get a 100 per cent increase in R-value. That is completely unjustified—

Senator McEWEN—Is that the six-star rating—

Mr Renouf—Yes. It is unforgivable. No-one could believe it when they first got promulgated as a draft in June. It is very, very serious, because the houses will stay hotter longer. There will be more thermal mass holding the radiation in it.

CHAIR—Thank you. If the other matters that you said you would like to inform the committee about are not in your submission—

Mr Renouf—No, they are there.

CHAIR—You may care to inform the committee about that by way of provision of information on notice.

Mr Renouf—They are here in front of you now. Am I able to say them quickly?

CHAIR—Would you like to table the documents you have?

Mr Renouf—There are two sheets here. One comes from an insulation program. It says on page 8—and this is pretty damning stuff; it is an insulation guide, part funded by the federal government’s Greenhouse Office back in 2001—in subpoint 3, which I have highlighted:

In hot climates the R-value of bulk insulation directly under roof cover may be reduced by up to 40 per cent of the advertised value. Detailed analysis should be undertaken to ensure that the required R-value can be achieved and maintained.

I will tell you what that means. It means that if you put bulk insulation under a burning hot roof your R-value is degrading very quickly. And I know why: because it is beyond the American test method. That is the way I interpret that.

Secondly and lastly, the other document here is quite incredible. You were asking the question: ‘Have propositions been put to the government before?’ ‘Oh yes. This has been going on for decades.’ This one here is a thermal performance comparison between fibreglass batts and reflective foil insulation in ceilings in Queensland homes in 1981.

CHAIR—Now that you have drawn the committee’s attention to that final point, perhaps you would care to provide us, on notice, with your written explanation as to why you take issue with that statement—I assume you take issue with it?

Mr Renouf—Yes.

CHAIR—That would help us very much.

Mr Renouf—I can give you a photocopy of the entire document so you can see it in its context. Thank you. You will not understand its context until you see the cover that goes with it.

CHAIR—We would like you to explain it when you provide us with that information. Thank you very much, Mr Renouf.

[3.38 pm]

RILEY-TAKOS, Ms Kareen, Relationships Manager, Standards Australia

CHAIR—Welcome, Standards Australia. Ms Riley-Takos, the evidence you are about to give is public and protected by parliamentary privilege. If at any stage you want to provide evidence off the record—that is called in-camera—please request it and the committee will consider it. It is an offence for a third party to attempt to influence or otherwise interfere with evidence that is to be given to this committee. Indeed, it is potentially in contempt of the Senate, as it is for a witness to attempt to give false or misleading evidence to the committee. Do you wish to amend or change the submission lodged?

Ms Riley-Takos—No.

CHAIR—Do you wish to make a quick opening statement?

Ms Riley-Takos—Sure, and I will probably explain in my statement a little more about the consultation that we are currently undertaking. I will start by giving a bit of background for Standards Australia. Some of you might be familiar with the organisation. We are recognised by the Commonwealth government as the peak non-government standards body in Australia through a memorandum of understanding with the Commonwealth. We are a not-for-profit organisation and we facilitate the development of Australian standards by working with government, industry and the community. We also promote excellence in design and innovation through the Australian International Design Awards. We also respond to national needs for contemporary, internationally-aligned standards that deliver net benefit to Australia. Standards Australia is also the national member of a number of international regional bodies. We provide support to the government on a range of international standards development organisations, and we also administer funding from the Commonwealth Department of Innovation, Industry, Science and Research for the purpose of subsidising travel costs of Australian representatives to attend international committee meetings.

It is quite important to note that Standards Australia facilitates the development of Australian standards according to a consensus model. This requires a very rigorous, transparent and unbiased process, and we ensure that all competing interests are heard, all the differing points of view are considered and a consensus outcome is reached. The strength, robustness and authority of Australian standards rely on and are underpinned by those principles.

We have a catalogue of approximately 7,000 Australian standards, and we have a policy of basing those Australian standards on international standards to the maximum extent feasible. Many Australian standards are developed for the purpose of legislative adoption, and about one-third of the 7,000 standards that we have in our catalogue are referenced in legislation. They are generally a very valuable tool for regulators that wish to prescribe consumer protection requirements for goods or classes of goods which may pose risks to consumers.

In general, Australian standards set specifications and guidelines to ensure the quality, safety, reliability and consistency of products and services. They generally specify the effort required of

consensus groups such as the technical communities which develop the standards under the authority of Standards Australia to achieve consensus and ensure that the interests of all stakeholders are considered during the development of an Australian standard.

With respect to the Commonwealth Home Insulation Program, there are three Australian standards that are referred to under the guidelines. The first one is AS3999 ‘Thermal insulation of dwellings—Bulk insulation—Installation requirements’. As the title says, it prescribes procedures for installing bulk thermal insulation in dwellings. This standard also has a section which prescribes requirements for the installation of bulk insulation surrounding electrical cables. The other standard which is referred to under the Commonwealth Home Insulation Program guidelines is AS/NZS4859.1 ‘Materials for the thermal insulation of buildings—General criteria and technical provisions’. Evidently, as the title says, this document covers thermal insulation materials that may be used in buildings. It is also a primary reference under the Building Code of Australia. There is a third Australian standard which is referenced under the Home Insulation Program and that is AS/NZS3000, commonly known as the ‘Wiring Rules’. The Wiring Rules set out the safety requirements for the design, construction and testing of electrical installations in all types of buildings, structures and premises. A particular section of this standard is actually mandated under the Home Insulation Program. I will get to that point later on.

These documents were developed by two of Standards Australia’s technical committees, the first one being Committee BD/58 ‘Thermal Performance and Insulation of Dwellings’, which is responsible for both AS3999 and AS/NZS4859.1. The Wiring Rules fall under the responsibility of EL-001, which is the wiring rules committee.

Standards Australia technical committees have a broad and balanced representation from all the interest groups concerning the documents developed by them. Members are consumer representatives, industry professionals, government representatives and academics who come together across Australia to consider how products or systems should perform and how they should be made. I would like to highlight that Standards Australia has processes in place to ensure due process for the development of Australian standards. We are neutral facilitators and the content of Australian standards is developed and agreed upon by technical experts on the technical committees who are volunteers. Under the standards development process, general members of the public also have the opportunity to make comments on every draft Australian standard.

Under the Home Insulation Program guidelines, installers are required to comply with AS3999 but are explicitly directed to substitute the requirements of this standard with the wiring rules requirement for the minimum clearance distance from recessed luminaires. So in essence the wiring rules address the issue of downlights in ceilings by providing four alternatives for compliance which will minimise temperature rise and the risks of fire. I will briefly talk through those alternatives.

CHAIR—Do you have those alternatives in your written statement?

Ms Riley-Takos—Yes, I do. Would you like me to provide you with that?

CHAIR—That would help.

Ms Riley-Takos—Okay. This is important in the sense that the consultation that we are currently undertaking with respect to the document and the currency of the document is particularly related to different requirements within the wiring rules and AS3999. That is where I would like to highlight the differences. Can I go through it?

CHAIR—Go ahead.

Ms Riley-Takos—It provides four options for compliance and if you can use none of the previous three options there is a defined clearance that you have to install insulation within 200 millimetres from the downlights. Under AS3999, the requirement is 25 millimetres in terms of space from the insulation material. In discussions with stakeholders, concerns were raised about the different requirements within those standards. There were calls from the Electrical Safety Office in Queensland that AS3999 be withdrawn. Standards Australia, as part of the consideration as to whether or not to withdraw the standard, initiated consultation with all the relevant stakeholders as to what course of action should be taken. That is part of the consultation that we are currently undertaking. I want to highlight that the consultation that we are undertaking on the currency of the documents that we have in our catalogue relating to thermal insulation are pretty much restricted to those issues in terms of the different requirements. It has nothing to do with AS/NZS 4859.1, which was discussed earlier today.

To finalise my initial statement, I think there are two important points on this issue. I think the goal in terms of the different requirements of the wiring rules and what is under AS3999 is that we need to get the balance right. Evidently safety should always be the priority, but if you have a thermal performance that is reduced significantly because of the gaps that you would be providing surrounding recessed luminaires there must be a way that it could be done where the requirements would provide for both optimal thermal performance and not posing a risk of fire. That is part of the consultation that we are undertaking with our stakeholders.

My second point is that while we are undertaking that consultation the Commonwealth Home Insulation Program is very clear that installers should be using the requirements under the wiring rules. Consultations that Standards Australia is currently undertaking have absolutely no impact on the Commonwealth Home Insulation Program, in particular following the outcomes of the industry meeting held in October 2009 where a decision was made that downlight covers would be mandatory under the Home Insulation Program.

Senator BARNETT—Thanks very much for being here and presenting your evidence accordingly. We look forward to getting a copy of your opening statement. In short, we have had a lot of evidence today expressing extreme dismay about Standards Australia and the standards that apply to insulation. We have had expert evidence from different people saying that they are inadequate. With respect to the insulation product and the installation process, are the standards inadequate?

Ms Riley-Takos—It is very difficult for me to comment. As I said, Standards Australia facilitates the process of developing a document. The technical experts who sit on the committee are the ones who are capable of providing that answer. As I mentioned in my opening statement, there has been no indication that 4859.1 is inappropriate. As a matter of fact, the Aluminium Foil Insulation Association, in a letter sent to the Prime Minister, Kevin Rudd, back in February 2009, said that for the program to work well all materials should comply with that particular

standard. I am unaware that Australian standard 4859 is inappropriate. We welcome any stakeholder and any—

Senator BARNETT—Have you ever been advised that it is inappropriate?

Ms Riley-Takos—No. The only information that we have received on inappropriateness of the document came from the Electrical Safety Office in Queensland with respect to AS3999, which does not even apply to reflective foil insulation.

Senator BARNETT—When did that letter come to you?

Ms Riley-Takos—The advice that we received from the Electrical Safety Office from Queensland was in late September last year.

Senator BARNETT—Would you provide a copy to the committee, please, on notice?

Ms Riley-Takos—Sure.

Senator BARNETT—Have you received any other evidence or communication regarding the inadequacy of the standard since this program commenced in February last year?

Ms Riley-Takos—We held informal discussions with other stakeholders. As soon as we received communication that the electrical safety regulator in Queensland was saying that the differing requirements under both documents could pose a problem, we discussed it with the chairman of the committee BD58, which is responsible for thermal insulation. Evidently the document is 18 years old. His position was that there was room for improvement but the current requirements of that document are not inappropriate.

Senator BARNETT—Can you provide a copy of that to the committee?

Ms Riley-Takos—They were informal discussions on the phone. I do not have that in writing.

Senator BARNETT—You are relying on the evidence that you have, but who developed the two standards that you referred to in your submission?

Ms Riley-Takos—I can provide you a copy of all the nominating organisations that were represented on the committee.

Senator BARNETT—Yes.

Ms Riley-Takos—The way that representation works in Standards Australia's committees is that, generally, no one particular manufacturer or individual would be developing the document. They sit on our technical committees representing a portion of a sector.

Senator BARNETT—I am interested to know who was represented on those committees.

Ms Riley-Takos—Would you like me to read that or would you like a copy of it?

Senator BARNETT—I am happy for you to table it. Do you have a copy there?

Ms Riley-Takos—If you have a copy of the standards document, it lists on the front page of the standard all the organisations that have been involved in the standard—

Senator BARNETT—If you are happy to table that, we will get a copy of it.

Senator McEWEN—Could I follow on from that. We had a claim that there is a vote about standards. Is that right?

Ms Riley-Takos—That is correct. Regarding the consensus process, I will guide you very briefly through how standards are developed. An initial draft is developed by a technical committee. Once the draft is completed, it is put out for public comment, where any member of the public can comment on the draft. It goes back to the technical committee, they look at all the public comments and they have to justify why they are changing parts of the standard. Then, once there is a final draft, there is a vote. Every nominating organisation which is represented by a technical expert on the committee has the right to vote on the document and consensus needs to be achieved.

Senator BARNETT—What does consensus mean? A majority?

Ms Riley-Takos—We have very strict rules for consensus. It is a general agreement, characterised by the absence of sustained opposition to substantial issues by any important part of the concerns or interests, and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments. To be more precise, the consensus rules are: that a minimum of 67 per cent of those eligible to vote have voted affirmatively, and a minimum of 80 per cent of votes received are affirmative; and no major interest involved with the subject of the standard has collectively maintained a negative vote.

Senator BARNETT—Let me just cut to the quick: can you take on notice to provide further and better particulars regarding who was on the technical committee, who was on the substantive committee, what the vote was, who voted which way and any further details in that regard?

Ms Riley-Takos—Yes.

Senator BARNETT—Because, frankly, we have been receiving evidence today that a particular part of this industry is isolated.

Ms Riley-Takos—Yes, I do understand there was a negative vote from the Aluminium Foil Insulation Association at the time, when the amendment in 2006 was issued.

Senator McEWEN—This is the amendment to which standard?

Ms Riley-Takos—To 4859.1.

CHAIR—So you understand the context of Senator Barnett's question?

Ms Riley-Takos—Yes.

Senator BARNETT—And you are aware of the expert evidence of Dr Aynsley. I do not know whether you heard that today.

Ms Riley-Takos—Yes.

Senator BARNETT—Do you have any response to his concerns?

Ms Riley-Takos—There were claims from the Aluminium Foil Insulation Association that, with respect to the amendment to 4859.1, Standards Australia had failed to follow due process for amending the document. Standards Australia undertook an independent review of the matter. The report and findings were subsequently considered by the Building Standards Sector Board, whose membership comprises relevant stakeholders in the building industry—not necessarily thermal—although I am not quite sure of the constitution of that particular sector board at the time. The review and the Building Standards Sector Board concluded:

... appropriate policies and procedures were followed in the development of the draft amendment and transparency, balance over presentation and consensus were achieved in the process.

Senator BARNETT—We are a little tight for time, so if you want to provide any further details in answer to that question, please feel free. I want to draw you specifically to this question about the Australian standard for insulation materials referring to the ‘average temperature’ being 23 degrees, although throughout much of Australia the temperature in use is much higher. We have now had the evidence of Mr Renouf and the document he tabled about achieving R-values in best insulation performance. So can you respond to those concerns?

Ms Riley-Takos—I am not a technical expert, so I would not be able to comment on that. The issues and the discussions relating to the R-value are a matter for BD58, the technical expert committee. At the time the committee found that those were reasonable—

Senator BARNETT—Could I just draw to your attention to the Aluminium Foil Insulation Association submission—I think it is on page 2 or 3—and likewise to page 2 or 3 of Dr Aynsley’s submission; also to Mr Renouf’s submission; and to the evidence we have received. It is all reasonably compelling evidence. I would be interested in the response from Standards Australia.

CHAIR—Perhaps that question could be taken on notice.

Senator BARNETT—Yes, I am happy for you to take that on notice.

Ms Riley-Takos—Absolutely. I may need to refer it to the committee as a whole, and provide a statement from the actual technical committee.

Senator BARNETT—All right. Finally, the department have put a submission to our committee and they have referred to evidence and a decision made by Mr Garrett back in December. They say on page 29 of their submission:

Minister Garrett announced additional safety precautions on 1 November 2009.

They set out the changes, including:

- a ban on metal fasteners for foil insulation ...
- mandatory installation of covers over downlights ...
- a targeted electrical safety inspection program ...

And then they mention that on 1 December there will be ‘a mandatory formal risk assessment for every installation’. Does that mean that you have just been overruled?

Ms Riley-Takos—In terms of the metal fasteners, as I mentioned before, AS3999 relates to bulk insulation; it does not cover reflective insulation, and there is no provision for metal staplers or anything of the kind. With respect to the recessed luminaires, in terms of downlight covers, it is one of the options under the wiring rules. The Commonwealth, and any regulatory authority, can choose to further what is in an Australian standard.

Senator BARNETT—But they have changed those standards. Rather than making them optional they have mandated the manner in which that installation should take place. Is that correct?

Ms Riley-Takos—Yes.

Senator BARNETT—So he has changed the standard to that degree. Is that accurate?

Ms Riley-Takos—He is not changing the standard. The document exists as it is, and that is very important. Every Australian standard is a voluntary document. Whether jurisdictions and regulatory authorities would like to mandate them in their regulations is entirely up to government.

Senator BARNETT—The department’s submission says, at page 29:

In addition, from 1 December ... , a mandatory formal risk assessment for every installation is also required before any work can commence.

So that is a decision that they have taken in their discretion based on whatever evidence and advice are before them.

Ms Riley-Takos—Correct.

Senator BARNETT—So that process does not override necessarily Standards Australia in your view?

Ms Riley-Takos—No, not at all.

Senator McEWEN—Thanks very much for your evidence. Can I clarify that at the moment there are the three standards that deal with this issue that is at the heart of the Senate’s inquiry

and two of them, AS/NZ 3000 and AS3999, are currently subject to consultation with stakeholders.

Ms Riley-Takos—The one subject of the consultation is with respect to AS3999

Senator McEWEN—When do you expect that consultation to be completed?

Ms Riley-Takos—5 March is the deadline that we been given. I would be more than happy to provide the names of the organisations that have been consulted and the nature of the letter. The letter that we have circulated is pretty much saying, ‘Well, should we withdraw the standard, does there need to be a revision of it or should we take no action?’ We are not pre-empting it by saying that there is a problem with the standard. We are actually consulting with those that have the knowledge to tell us what are the next steps.

Senator McEWEN—So the responses are due by 5 March—

Ms Riley-Takos—Correct.

Senator McEWEN—and then a decision will be made about what to do, if anything.

Ms Riley-Takos—That is correct.

Senator McEWEN—And there is no such consultation process with AS/NZ3000?

Ms Riley-Takos—No. With AS/NZ3000 there was an amendment issued in late 2009.

Senator McEWEN—We have had evidence that AS/NZ4859.1 is a complicated standard and is difficult to interpret. What is your take on that comment?

Ms Riley-Takos—I would probably have to agree with that. One comment that I make is that any party or any organisation is more than welcome to propose a revision of the document. Our processes are open to all relevant and interested parties. I would welcome any party that feels that the document is not appropriate to put in a project proposal so we can review the document.

Senator McEWEN—But you could of your own volition commence a review of that standard?

Ms Riley-Takos—We could but we would need to consult with those that have the expertise. Standards Australia manages the process and facilitates the process. We do not have the knowledge to say there is a problem with a document.

Senator McEWEN—So you have had no formal approaches to commence a review of that particular standard that people have complained about?

Ms Riley-Takos—That is correct.

Senator McEWEN—Obviously, you deal with lots of standards—7,000 of them I think you said.

Ms Riley-Takos—That is correct.

Senator McEWEN—Is it the case that standards relating to this particular industry are perhaps more contentious than others?

Ms Riley-Takos—It is my understanding that in the past, before the 4859.1 was developed, there were different standards for each type of product and once there was a decision that all the thermal insulation materials should come under one standard our processes, as I said, were open to everyone. We try as best as we can to have a balanced representation in the committee but we do not necessarily like to veto interested parties from participating in it. You should see the constitution of the committee. It was a pretty significant group. It had several nominating organisations from a diverse part of the sector. I would say, as you have been hearing the whole day today, it is a very competitive industry. But this is a part of the essence of standards development, which is that you bring all the conflicting interests to a table and you try and find an outcome that is appropriate for all parties involved.

Senator McEWEN—Okay. And the issues of 4859 have been ongoing since prior to the introduction of the Home Insulation Program?

Ms Riley-Takos—That is correct, yes. The document 4859.1 was developed in 2002. I am not aware that there were any particular issues when the original document was developed. The issues with the negative vote from the Australian foil industry association were related to an amendment that was issued in 2006. There were ongoing discussions with the association at the time, and that was when an independent review of our processes was conducted. Standards Australia was satisfied that due process was observed and there were no issues with that.

Senator McEWEN—And the allegations that we have also heard through the course of this inquiry—that is, that the committees on Standards Australia that deal with these issues are stacked with a certain sector of the insulation industry—what would you say about that?

Ms Riley-Takos—As I said before, the independent review that was conducted at the time, it was felt that the balance of representation was not compromised at all. That was reviewed by the building sector board at a later stage following certain complaints from the Australian foil industry association.

Senator BARNETT—Since the program commenced in February last year, has Standards Australia had any communication with or between Minister Garrett or the department?

Ms Riley-Takos—Yes, I attended a meeting with other industry representatives on, I believe, 27 October 2009, which was conveyed by the department.

Senator BARNETT—Did you receive minutes from that meeting?

Ms Riley-Takos—I do not recall, but I do not think there were minutes from the meeting—or at least I did not receive them.

Senator BARNETT—Can you check and, perhaps on notice, let us know? What was the nature of the meeting and what was the outcome of the meeting?

Ms Riley-Takos—I understand that the meeting was conveyed following a fatality in Queensland. There were discussions, and my recollection of it is that following the meeting that I attended there was a need to improve some of the training documents. I believe some of the industry skills councils were meeting the following day to start working on those documents. There were discussions about mandating or not mandating cover for downlights, the outcome of which was that the department erred on the safer side. There were discussions about the metal fasteners as well.

Senator BARNETT—So up until now, since February last year, the only meeting or communication you have had with the department or Minister Garrett is at that meeting in October?

Ms Riley-Takos—That is correct.

CHAIR—Thank you very much, Ms Riley-Takos, for your evidence today and the further evidence that Standards Australia will provide us with on notice.

Ms Riley-Takos—Thank you.

[4.09 pm]

ARCHER, Mr Toby, Policy and Liaison Worker, Tenants Union of Victoria

RICHTER, Ms Monica, Sustainable Australia Program Manager, Australian Conservation Foundation

WESTMORE, Mr Tony, Senior Policy Officer, Australian Council of Social Service

CHAIR—I welcome Ms Richter, Mr Westmore and Mr Archer. Do you care to amend any of the submissions that your respective organisations have lodged?

Ms Richter—No.

CHAIR—Mr Archer, I invite you to make a brief opening statement.

Mr Archer—My comments may seem slightly out of context. I am talking about a very particular part of the overall package. Our interest in the package is in how it relates to residential tenants, particularly private tenants. Essentially, our interest is because we believe that climate change and extremes in temperatures will have a disproportionate impact on residential tenants unless all levels of government develop policy responses that actually place priority on addressing the barriers to upgrading the nation's rental housing stock. We strongly support the objectives of the package and also support the revised GreenStart Program. We certainly have some concerns about how the package proceeded.

Essentially, we were quite concerned about the poor uptake in relation to tenant-landlord households. We understand that in the initial stages the ratio of owner occupied and tenant-landlord households taking up the package was 14 to one, so there was quite a stark disparity between the two sectors. We formed the view that this poor performance is due to the lack of the specific targeting of rental properties and the lack of compulsion for landlords to consent to the installation of insulation under the package. Further, the effectiveness of the program could have been enhanced by giving far greater consideration to the dynamics of the tenant-landlord relationship.

The key barrier to the uptake of energy efficiency in the rental sector is the quite well-discussed concept of the split incentive, which is essentially where the two parties to the relationship have quite divergent interests. Essentially, landlords incur the upfront cost of installing energy efficiency but receive none of the ongoing benefit. The tenant on the other hand incurs the total operating costs of a property and all of the fixed appliances in that property. That is the key barrier and policy issue, along with the fact that the rental stock in Australia is of quite poor standard. The majority of properties in the private rental market were constructed before there was any consideration of energy efficiency in the building instruments. So we see that there is quite a serious exposure to extreme temperatures for people living in the private rental market.

Beyond that consideration, there is the fact that some of the realities about the tenant-landlord relationship were never fully examined. Quite often, there are a few things that multiply the split incentive. They tend to revolve around the way that private rental stock is managed. Contrary to popular belief, there is little evidence to suggest that private landlords are model rational economic actors. The multiplying effect on top of the split incentive that is created by the tenant-landlord relationship revolves around a few key points. Essentially, there is the lack of awareness and appreciation of energy efficiency, a resistance to changing habits around maintenance and energy use behaviours and inadequate information about the costs and benefits of investing in energy efficiency. The thing that we see time and time again through our service is that properties are not maintained and fixed appliances are not replaced until they absolutely have to be. The overall effect of that are quite serious deficiencies in the stock.

To summarise, we think that it is a program that can address a range of public policy objectives. We certainly support the objectives, but we have some quite serious concerns about how it has rolled out in the private rental market.

Ms Richter—Thank you very much for the opportunity to provide some comments. My comments are in relation to the joint submission between ACF and ACOSS. The Australian Conservation Foundations believes that the Energy Efficient Homes Package ceiling insulation is an important part of Australia's efforts to tackle climate change. While the introduction of a price on carbon is a cornerstone policy for shifting towards a low-carbon economy, complementary measures such as investment in energy efficiency are also essential. A program focused on making our homes more energy efficient has the added advantage of making them cheaper to run by reducing electricity bills and more comfortable to live in, cooler in summer and warmer in winter. A properly insulated home is expected to save up to 40 per cent on household electricity bills.

This Energy Efficient Homes Package was expected to insulate 2.2 million homes, a very ambitious and the most ambitious retrofit program of its kind in Australia. This program has proven to be very popular and, while the safety and appropriate training issues need to be sorted out immediately, ACF believes that the program should continue to roll out.

We provided the committee with a copy of the ACF-ACTU jointly commissioned report on the green collar jobs revolution. I would bring your attention to the opportunities for investment in energy efficiency services and technologies and the opportunity to not just grow the domestic market but to grow the market internationally through the technical skills development that is needed. It is this kind of economy-wide transformation that is needed. It will not happen overnight, but improving upon and expanding the kind of program that we are discussing today will be beneficial for many reasons, including upskilling workers to take advantage of this growing industry.

As Mr Archer identified, in terms of low-income households, anecdotal evidence does suggest that there has been poor uptake of this initiative among tenants and landlords. We would encourage additional incentives so that landlords are provided with the right incentives to invest in insulation and other energy efficiency measures.

In conclusion, the Australian Conservation Foundation believes that the energy efficiency ceiling insulation package is well targeted, even if there have been some serious problems. We believe that these problems need to be dealt with promptly and that the program must continue.

Mr Westmore—Thanks for the opportunity to discuss our submission and related matters. Before making a brief statement, I want to acknowledge that there have been four deaths linked to this program and say that any workplace related death or injury is deplorable. The fact that there as many as 2,000 workplace related deaths in Australia each year is incomprehensible. ACOSS supports measures that ensure occupational health and safety through appropriate training, supervision, regulation and, where necessary, penalties. Employers are responsible and must be held accountable for the safety and well being of their people.

Our interest in the Energy Efficient Homes Package is primarily about its impact on Australians in the two lowest quintiles of income and especially those living in poverty. Our interest in ceiling insulation derives from our understanding that most low-income households spend relatively more of their income on energy than other households. Most low-income households are in the private rental market. Most have little discretionary expenditure and little capacity for significant capital outlay. Most tenants are restricted in their capacity to make changes to the fabric of their tenancy.

The potential benefits of ceiling insulation are: increased amenity—better thermal efficiency gives better bang for buck—more efficient use of energy consumed, reduced waste and increased comfort. There is also the potential to reduce energy consumption as energy prices increase significantly, and thus the potential to minimise energy bills. Finally, reduced energy consumption may also lead to reduced production of greenhouse gas.

It is not clear to us how many of the 800,000 homes insulated through the program between February and December last year were rented or how many were occupied by low-income households. It should be noted that a component of the program specifically for renters was cancelled as a result of low uptake. We are concerned though that low uptake by landlords may be a continuing feature of the program and that data collected as to the nature of occupancy may be inadequate.

The federal government's Green Start program announced in December should go some way towards facilitating access to this and other programs by both federal and state governments. Your terms of reference asked about the costs and benefits of extending the program to include other energy efficiency products. Our view is that for low-income households there would be certain benefit in extending the program to a range of other measures but in a more targeted fashion for homes occupied by low-income households and, following an assessment of the particular circumstances of each home and household, including appropriate engagement with the occupants with a view to improving their understanding of energy consumption. The Green Start program starts in this direction, but with limited capacity.

Finally, we observe that the program is at least partly, if not primarily, directed to economic stimulus. We are not well-placed to comment on the success or otherwise of the program in that regard. But to the extent that it is successful—in minimising unemployment, keeping businesses in business and factories at work—the program is welcome as one of a suite of measures.

Senator McEWEN—I will start with Mr Archer first. You mentioned, as we all know, what we think is a relatively low uptake by landlords for tenants. You talked about a split responsibility scheme to try and improve that. How would you see that practically working and what would be the costs?

Mr Archer—I think one of the real barriers to the success of this type of scheme in the private rental sector is the relationship between incentives, rebates or other schemes to encourage landlords to retrofit their properties and the residential tenancy laws in each state. Essentially, each of the residential tenancy laws around the country do not provide any guarantees—any legislated minimum standards—in relation to thermal efficiency of the property. I think the lesson from this is that incentives in and of themselves will not lead that retrofitting program. You really need to provide some compulsion on behalf of landlords to drive that retrofitting process. I do not think that there are any easy solutions to this. It is clear that there is no silver bullet.

Senator McEWEN—The proposals to have six-star ratings on new homes will apply to properties that can be rented as well. Do you think that over time that might assist?

Mr Archer—We reported some comments by the Master Builders Association in our submission. Their estimate of the current energy rating of Victorian housing stock is just 2½ half stars or thereabouts. Given that in Victoria we only construct about 40,000 new properties each year, the MBA estimates that it would take 40 years to get half of our entire housing stock up to the point where it meets the current energy star rating. The key gain here in the rental market is how to address the existing stock. The little that we do know about the existing stock is that it is generally the oldest, poorest quality stock that has had the least expended on maintenance. The emphasis on new build cannot resolve this problem. It will take 100 years before we get to the stage where each rental property is meeting today's standards and by that time we will have a different set of expectations around energy efficiency.

Senator McEWEN—Okay. Are there any other examples of a rebate scheme that has encouraged landlords to make improvements to their properties which benefit their tenants that we could look at as a way forward? It does not have to be federal government or to do with home insulation, it could be state or local government funded.

Mr Archer—There are certainly a number of schemes around the country and in similar housing systems around the world. They all display universally poor performance when there is nothing compelling the landlord to ensure that their property achieves a certain standard before it comes to market.

Senator McEWEN—Ms Richter, you said in your evidence that a properly insulated home could return a 40 per cent reduction in electricity bills for the householder. Is that right?

Ms Richter—That is right, yes.

Senator McEWEN—Do you know how much that would be in dollar terms?

Ms Richter—Off the top of my head—

Mr Westmore—It depends dramatically, of course, on where you are in the country and the nature of the climate around you. The other thing that is a key factor is whether or not you have got a choice of fuel: in Victoria, for example, there are a lot of people who heat with gas. But you could bank on \$1,000 a year. Those prices are increasing, but that is a saving of \$400 a year.

Senator McEWEN—Sorry—are you saying about \$1,000 a year?

Mr Westmore—That would be your expense, or if you saved 40 per cent you would be saving \$400.

Senator McEWEN—All right. Ms Richter, you mentioned that while ACF is supportive of the program you would recommend some improvements or expansions to the program. What kinds of things are you talking about?

Ms Richter—Obviously the safety issues and appropriate training need to be sorted out immediately. But in terms of improving—

Senator McEWEN—I mean in terms of benefit for the low-income people that you represent.

Ms Richter—I think the issue around landlord and low-income people is a complex one. We did some work with ACOSS and Choice; I think I sent that report about energy and equity issues to you. We made some policy recommendations in there.

We are talking here about some major retrofit programs and the need for auditing and assessment of the energy footprint of households, including rental households. The Brotherhood of St Laurence runs a program in Victoria which I think is a very good example of a program that is working with low-income households to retrofit and make the houses more comfortable. I think there was another scheme running here in New South Wales and maybe there was a buyback scheme with old refrigerators in Victoria. The government would buy back old refrigerators and replace them with new refrigerators, which are, of course, substantially more energy efficient. Again, this was targeting low-income households and reducing electricity bills. Those are the two examples that I can think of that would be well worth looking into and rolling out at a more national level.

Senator McEWEN—Mr Westmore, you said—and I was not aware—that we do not know how many of the million houses that have had insulation installed in them under the housing insulation program were rental properties. That is your understanding—is that right?

Mr Westmore—I have made an approach to the department of the environment to find out and I have not been able to get an answer. It may just be that they are compiling data, but it may be that they have not collected it. When they moved away from having the two separate programs—the programs specifically for renters—I do not know that they included a means of checking out who was actually living in the house or who made the application in their data collection.

Senator McEWEN—All right—maybe that is something that we could follow up. Those changes to the rental program occurred not long after the introduction of the Home Insulation Program. Has anyone got a comment on whether they have been successful? I know you are all

saying that the take up from landlords is still not as good as we would like, but were the changes useful?

Mr Westmore—One of those changes was that, when it was first announced, the renter program required the landlord to make the expenditure and then claim it back, and the amount available was significantly less than under the general program—\$1,000 rather than \$1,600. So I think the two changes that were affected by the abolition of the renters program—that landlords would have access on the same basis, as they would just call the 1800 number and not be out of pocket, and that it was available at the same level—should have eased the way for landlords.

Senator McEWEN—Does anyone else want to comment on those changes?

Ms Richter—No.

CHAIR—Thank you, Senator McEwen. Mr Archer, in your submission suggesting the tightening up of energy efficiency requirements for rented accommodation, do you have any concerns that, in the sense that it is more red tape for landlords in your world, this might lead to tightening up of the rental market and hence disadvantage for your representative base?

Mr Archer—Certainly, it is almost difficult to conceive of a rental market in capital cities that could be any tighter than it currently is. I think we have quite dysfunctional rental markets in each of the capital cities at the moment. There is not good research on what motivates landlords and why they make the decisions they do. There has certainly been some research over the last 15 years that has indicated that long-term capital gain is a far greater consideration for Australian landlords than week-on-week rental income.

I think that prior to the 1980s there were certainly quite stringent requirements around the standard of properties that had to be let, and we certainly did not see any changes in the investment in the market when those legislative requirements were altered. Given that the motivation, generally, is long-term capital gain, I suspect that what would happen is that people would stay in the market. I do not think that those houses are just going to disappear. Some of them may get shifted into the affordable purchase part of the market, but they certainly will not be lost from the overall circulation of housing supply.

CHAIR—On what basis can you say that with certainty?

Mr Archer—I do not think anybody can say that with absolute certainty. I think there are certainly a lot of trading anecdotes around the investment decisions that landlords make. There is certainly the assumption that they act as rational economic actors. There are certainly no research findings that support that. If you look at the types of landlords who predominate in Australia, I think it is somewhere in the region of 85 or 90 per cent of landlords who have two or fewer properties. We are not talking about investors who are just going to, all of a sudden, switch out of property into the share market or something like that. I do not think anybody can say with any certainty exactly what it is that drives their motivations, what it is that they take into consideration when they determine the rent that they set.

CHAIR—Thank you very much. Thank you, Ms Richter, Mr Westmore and Mr Archer. Thank you for your time and your evidence today. Without any further ado, that draws today's

hearing to a close. Prior to doing that, we will move to accept the various documents tabled today.

Senator McEWEN—That is so moved.

CHAIR—Thank you, Senator McEwen. The committee looks forward to further hearings of the committee in the near future. Thank you all.

Committee adjourned at 4.34 pm