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Official Committee Hansard

**HOUSE OF
REPRESENTATIVES**

STANDING COMMITTEE ON COMMUNICATIONS,
INFORMATION TECHNOLOGY AND THE ARTS

Reference: Uptake of digital television in Australia

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HOUSE OF REPRESENTATIVES

**STANDING COMMITTEE ON COMMUNICATIONS, INFORMATION TECHNOLOGY AND THE
ARTS**

Wednesday, 1 June 2005

Members: Miss Jackie Kelly (*Chair*), Ms Owens (*Deputy Chair*), Mrs Bronwyn Bishop, Mr Garrett, Mr Griffin, Mr Hayes, Mr Johnson, Mr Keenan, Mr Laming and Mr Ticehurst

Members in attendance: Mrs Bronwyn Bishop, Mr Garrett, Miss Jackie Kelly and Ms Owens

Terms of reference for the inquiry:

To inquire into and report on:

- The rollout process for digital television, including progress to date and future plans
- Options for further encouraging consumer interest in the uptake of digital television
- Technological issues relevant to the uptake of digital television
- Future options

WITNESSES

**CAMERON, Mr James, Chief General Manager, Broadcasting, Department of
Communications, Information Technology and the Arts 1**

GENGAROLI, Mr Fred, Acting Director, Planning, Australian Broadcasting Authority 1

**PELLING, Dr Simon, General Manager, Digital Broadcasting and Spectrum Management,
Department of Communications, Information Technology and the Arts 1**

TANNER, Mr Giles, Acting Member, Australian Broadcasting Authority 1

Committee met at 9.27 am**GENGAROLI, Mr Fred, Acting Director, Planning, Australian Broadcasting Authority****TANNER, Mr Giles, Acting Member, Australian Broadcasting Authority****CAMERON, Mr James, Chief General Manager, Broadcasting, Department of Communications, Information Technology and the Arts****PELLING, Dr Simon, General Manager, Digital Broadcasting and Spectrum Management, Department of Communications, Information Technology and the Arts**

CHAIR (Miss Jackie Kelly)—I declare open this public hearing of the House of Representatives Standing Committee on Communications, Information Technology and the Arts inquiry into the uptake of digital television in Australia. The inquiry arises from a request to this committee by Senator the Hon. Helen Coonan, the federal Minister for Communications, Information Technology and the Arts. Written submissions were called for and 72 have been received to date. The committee is now starting on a program of public hearings and informal discussions. This hearing is the second for the inquiry.

I welcome the representatives of the Department of Communications, Information Technology and the Arts and the Australian Broadcasting Authority. Although the committee does not require witnesses to give evidence under oath, I would advise you that these hearings are formal proceedings of the parliament and consequently they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. Do you wish to make a brief statement in relation to your submission or would you like to make some introductory remarks?

Mr Tanner—I do not wish to make a submission but I would like to apologise on behalf of Lyn Maddock, the Acting Chair of the ABA. She is overseas this week. I spoke with Lyn before she left about this appearance. She reminded me that the ABA, in its communications with the committee to date, has made an attempt to make itself useful to the committee, because of our technical expertise inside government, by organising a demonstration of various digital features not just of free-to-air television but also of pay television. It remains Lyn's plan that from that engagement she was hoping to get a clearer sense of other ways in which we could help the committee. Perhaps there is further information we could give. However, I believe we have already arranged a date, which I think is 14 August, when we will brief the committee on the findings of the digital research we are now entering into. That is my understanding of where we are up to. I am happy to talk about the various roles the ABA is playing in relation to digital and about the ABA's experiences, if that is useful to this group.

Mr Cameron—I will make a brief opening comment. The department notes that a number of submitters to the inquiry have raised issues relating to the regulatory framework for digital television, including in relation to the restrictions that currently apply to multichannelling, the rules relating to datacasting and the issue of whether new commercial television licences should be allocated. The department is able and obviously happy to provide details of the regulatory framework itself and other factual material.

However, as I am sure the committee is aware, there are a number of reviews currently being undertaken by the department in relation to details of the television framework. These include issues associated with multichannelling, the datacasting regime and the question of additional commercial television licensing arrangements. They are currently being considered by the government. Therefore the department is not in a position to provide comment on the possible options that the government may pursue in the future. However, the discussion papers that the department prepared in relation to those inquiries and the views submitted are available on our web site.

Mrs BRONWYN BISHOP—But you actually make a statement—the government does not yet have a position on future options. So you cannot comment on any; you do not have any.

CHAIR—At the moment.

Mr Cameron—That is correct.

CHAIR—Hence this inquiry.

Mr Cameron—Mrs Bishop, my comment was merely to indicate that the department is not in a position to comment on what options the government may pursue in the future.

CHAIR—Do you want to expand, just for the record, on the current regimes: the current restrictions on multichannelling, the difference from ABC and SBS to the free-to-air, the commercial networks, datacasting et cetera? One of the things that keep coming out from the consumer is: ‘Que? There’s not much to it. It’s just a replay of the content.’ How much more room to move is there under the current regime for broadcasters to make it a bit more appealing to consumers?

Mr Cameron—The current regime is primarily a framework designed for the conversion of existing analog television services into a digital broadcasting environment. The objective of the regime, apart from conversion, is to provide a smooth process for consumers and for broadcasters for moving to that purely digital environment. The framework includes a range of measures for that process, including obligations in relation to the broadcasters to commence the roll-out and, in the final stages, to provide coverage in digital which is equivalent to their analog television services. It also sets a requirement for a period of at least eight years in each licence area of a simulcast of analog television services in digital, primarily in standard definition digital broadcasting, but also an obligation to provide at least 20 hours a week—in effect, 1,040 hours a year—in high-definition television.

As you have indicated, the effect of those requirements is essentially to preclude commercial television broadcasters in the main from offering completely new television services—from offering what is generally called multichannelling. There are some exceptions to those restrictions. For example, where there is a broadcast of a live sporting event, the conclusion of which is delayed into a news program, they are able to multichannel so that the news program can start on time and the live sporting event can continue to be shown. There are also abilities of broadcasters to show additional content which is closely associated with the primary program. For example, if there is a motor-racing event on the main channel, the broadcasters do have the capacity to offer additional camera angles or different types of commentary at the same time as

they are simulcasting their service. The national broadcasters are allowed to engage in a limited form of multichannelling. The range of programs they are able to show on their multichannels is limited by a set of genres which are described in the legislation.

In addition to the framework for conversion of analog services into digital, commercial television and national broadcasters are allowed to acquire a datacasting content licence from the ABA—and many of the broadcasters have. Under those datacasting licences, they are in a position to be able to offer a range of additional content. This can primarily be described as involving text or data based or short video content in relation to a range of genres of programming.

CHAIR—Commercials as well as nationals can do those?

Mr Cameron—Yes, that is correct.

CHAIR—How many markets are receiving something like *ABC Kids* in digital? *Kids* is one of genres that the nationals can—

Mr Cameron—The ABC ran two digital multichannels a number of years ago, one called *ABC Kids* and one called *Fly TV*. Those services were consistent with the genre rules that apply to national broadcasters. However, the ABC ceased those services around the beginning of 2003. In March this year the ABC launched a new multichannel called ABC2, which has a large amount of children's programming on it during the day. The ABC2 service also includes a range of other programs, public information and regional programming in particular. That service is available wherever the ABC has its terrestrial digital transmission facilities operating, which covers well over 90 per cent of the population. It is retransmitted on both the Foxtel and Austar digital pay television platforms and it is also available on a number of smaller pay television platforms—for example, Transact here in the ACT.

CHAIR—I want to move to the ABA, because we are expecting divisions shortly. Can you outline the merger of the two authorities and how that is affecting you?

Mr Tanner—Do you mean the rationale or the actual process of the merger?

CHAIR—No, the process to date.

Mr Tanner—We have had a fair bit of warning—the decision was made in the first half of last year. The legislation did not go through until a couple of months ago. From memory, it was in March. But we have used the time leading up to that to do all the work we could properly do before we had the legal certainty and we are now putting the finishing touches on that. The one brick in the wall—and I suppose it is really the keystone—that we are still waiting for is the identity and the appointment of the members and chair of ACMA. In the absence of identified members and chair, the two organisations have put together a cross-agency group with the fairly dry name of the operational planning group. This has worked to a steering committee consisting of the two acting chairs, of the ACA and ABA, and the secretary of the department. We have used that group basically to put in place the administrative arrangements we need from day one.

We are in the process of unveiling a proposed day-one structure because we just could not wait any longer for a chair to be identified. The steering committee made the decisions in its place. We are anticipating that, as at day one, there will be a high degree of integration of our corporate areas, of our corporate systems. We will be offering a single web site. We will have new stationery and badging. We also fully expect continuity of business to our regulated entities, the public and other stakeholders.

CHAIR—What about staffing?

Mr Tanner—Anybody who is on the staff of the ABA or the ACA will be handed over on day one to ACMA as an ACMA employee. Those staff will have certainty about with whom they are working. At the moment we are addressing overlaps in the structure, which are mostly in corporate areas, and ensuring there will not be any overlaps on day one. There will be a single source of advice to the chair and the authority on any issue.

CHAIR—If people have been dealing with someone within the ABA, they will carry on dealing with that person?

Mr Tanner—Yes, that is right. We are in the process of developing a set of messages for key regulated entities and other stakeholders just let them know whom they should continue contacting and we are progressively updating the *White Pages* references to us. We are doing what we can to send clear signals that there is going to be continuity of business.

CHAIR—One of the things that you are currently doing is some research into households.

Mr Tanner—Yes.

CHAIR—I imagine that that research is along the lines of phone surveys with a sample size of at least 400 or 500.

Mr Tanner—I have a fair bit more information here if you want it. I am not sure if it is telephone or door to door, to be quite honest. I have a lot of information here about it, but not that actual detail. We have certainly already engaged the firm which will be making the contact with people.

CHAIR—What is the size of the sample?

Mr Tanner—We are looking at slightly over 1,000 homes.

CHAIR—Would it be 1,000 homes in Sydney or are you looking at where analog has been switched off, say, in the hinterland of the Gold Coast? Are you looking at that area?

Mr Tanner—We are not concentrating on Mount Tamborine because it does not raise the same family of issues. My understanding is that it is a broad cross-section of the country.

CHAIR—What are some of the questions that you would be asking in that survey?

Mr Tanner—We are asking many questions and there are many branches. We are happy to show you all the questions. I suppose, just in overview, we are trying to explore choices that people are making around television—wider than digital but including digital. We are trying to understand what is going on in the viewers' minds: what is causing them to upgrade or not to upgrade and what other decisions are they making that might affect their attitude towards digital television?

CHAIR—That kind of survey result would be rather useful to this committee.

Mr Tanner—I would have thought so.

CHAIR—You did not think that was relevant in a submission?

Mr Tanner—We did, and we have been quite clear at all stages—in fact, I understand that we have already scheduled with you that we will report to you on 14 August 2005.

CHAIR—Do you think we could have some input into the questions that you ask? I find it strange that you are not targeting Mount Tamborine, where they have had the analog switched off and that obviously crystallised a few issues in terms of how people are finding digital.

Mr Tanner—Perhaps I should make quite clear that I regard Mount Tamborine as, at the moment, a completely unique situation. What is unique about Mount Tamborine and what caused all the problems was that a significant group of people had been enjoying what we call 'fortuitous reception'—that is, very weak TV analog signals that are not planned but they are there, so they put up masthead amplifiers and so on and get television that way. Because of spectrum congestion and the desire to use digital to fix black spots for good, for a significant number of people there was really no way they could preserve their analog reception. If they wanted to continue to receive television they had to upgrade to digital. That is a unique situation. We have strenuously avoided that, and successfully everywhere else in the country. I think there are extremely few, if any, Australians outside Mount Tamborine who have had to convert to digital once digital signals go on in order to retain their reception.

CHAIR—But in 2008 that is the plan, isn't it? Everyone will have to convert to digital.

Mr Tanner—No. The law says that there will be a simulcast period of eight years—and, yes, in the five major metro markets that ends in 2008; it ends at later periods in regional markets. It is eight years or such longer period as is prescribed by the minister. So in fact it is open-ended.

CHAIR—We are getting a number of submissions from regional stations finding that it is a heavy cost impost to keep going in simulcasts, so they are keen to turn it off. You do not think that Mount Tamborine is significant in any way?

Mr Tanner—We are not anticipating in the next two, three, four years any pressure on us to reverse what has been our policy to date, which has been to try very hard to protect analog reception from digital interference. The whole basis of our conversion so far has been that it is voluntary in nature, that we want people to upgrade to digital because they like the product.

CHAIR—You would not find, say, a survey sample of 400 in Mount Tamborine and getting some feedback on digital useful?

Mr Tanner—That would be very useful to inform the question: how would Australians react if we decided to make mandatory conversion and start turning off or turning down analog services? At such time as that, if that were to move onto the policy agenda of the government, that might be a very important survey to do.

CHAIR—You do not see it as being an important survey to do now?

Mr Tanner—I defer to the department here but I am not aware that the issue of turning off analog—coming ready or not: turning off analog and you have to pay for the digital—is actually on the agenda. It arose at Mount Tamborine because of a series of fairly unique problems around spectrum congestion and existing black spots. The Gold Coast has grown rapidly well beyond what the planned analog coverage was. Because of spectrum congestion, there was no way of fixing those problems using the otherwise pretty successful black spots program.

CHAIR—But don't you think, for all of that, it is still a fortuitous situation which is worth investigating and getting some survey samples from there which would be unique and indicative of future directions?

Mr Tanner—It might be, but I would hazard that if you were to propose that we start turning off analog now and that people would have to go and buy digital receivers, you would not really need a survey to tell you that would be very unpopular.

Mrs BRONWYN BISHOP—Put that in spades!

Ms OWENS—So the survey that you are doing at the moment is about a voluntary decision a person makes.

Mr Tanner—In the survey we are doing we are looking at why people are taking up digital, what problems they are experiencing, what problems they think they are addressing, what is attractive about it and what is problematic about it. It seems to us, in fact, that there are rapidly changing habits and practices around television in many homes and that that is affecting digital. Digital is not the main driver. We are seeing an incredible upsurge in DVD. There is an enormous surge now in widescreen television. The widescreen format is taking off. That seems to have almost picked up the free-to-air digital signal just in passing: when you get a widescreen TV it is a very small marginal cost—or it might even be built into the price if it is a better screen—to get digital reception. We are very keen to understand better—not just anecdotally from talking to DBA and the salespeople—what is going on and what the drivers are. What is attracting people to the digital package?

Ms OWENS—So this is not just about digital; it is about the broader regulatory framework of what happens with the other spectrum as well?

Mr Tanner—We are trying to look at what consumers think they are doing, what they are interested in and where they are going. We think that might have some implications—

Ms OWENS—For digital as well.

Mr Tanner—for digital policy settings, but we are going to let the facts speak for themselves. We are going to do the survey and it is going to be available to you and to the government.

Ms OWENS—My apologies, but I have to leave to speak in the House. I will come back when I can.

CHAIR—Before you go, can I seek the agreement of the committee that a subcommittee consisting of Bronwyn Bishop and me, as chair, be appointed to take evidence as required. That is agreed.

Mrs BRONWYN BISHOP—We were having a discussion before the hearing using my own example. I need to buy a new, large television for the main television room, if you want to call it that. But I have televisions all around my house—in the bedrooms, kitchen, whatever. You can buy very inexpensive regular televisions—

Mr Tanner—That is right.

Mrs BRONWYN BISHOP—which have pretty good pictures on them, and if you look at the more expensive options they will tell you they are ‘HD provided’ or words to that effect. In other words, if you want it you can have it.

Mr Tanner—‘HD ready’ sometimes.

Mrs BRONWYN BISHOP—‘HD ready’ or whatever it is—it is a set of words. But it does not give you any expectation of why you should spend all that additional money or what benefit you are going to get from it. There is certainly a move to the widescreen, flat television. That is probably what I will ultimately get, because it simply takes up less space.

Mr Tanner—I think you have put your finger on it exactly. What seems to have really unlocked the consumer interest in big screens—widescreens, but big screens in particular—is the advent of the flat screen at increasingly affordable prices, although they are still pretty high by many people’s standards. Worldwide, there is a growing trend. Because flat screens fit into even quite small rooms and flats, people are interested in moving to larger, widescreen and also, we think, higher resolution televisions. There seems to be a growing worldwide—

CHAIR—A lot of the flat screens still have the cathode ray tube at the back.

Mr Tanner—That is right.

CHAIR—So you are talking about plasma or LCD.

Mr Tanner—They merely have a nearly flat screen but they have that depth. The unlocking thing is really the actual flat screen—the plasma and the LCD.

Mrs BRONWYN BISHOP—No, not a plasma—plasma will not fly. It is the newer LCD ones that are interesting.

Mr Tanner—There is now a tremendous battle for consumers going on over large cathode ray tubes, LCDs and others. I do not think you can pick up a TV magazine now without at least once every one or two months seeing a comparison of the models. What I was saying was that there is tremendous consumer interest now in the big screens and in the high-resolution screens, but certainly in the widescreens. It is almost as if two markets are developing, because we are seeing the cheap cathode ray sets coming out of China at what seem to be very low prices.

Mrs BRONWYN BISHOP—They are.

Mr Tanner—There is not really so much of a middle market now. Maybe the people who were in the middle market are waiting for the big screens to come down.

Mrs BRONWYN BISHOP—That is me.

Mr Tanner—That is me; maybe that is you as well. There are different streams here. I do not think all this was clearly predicted by anyone, even in 1998 when digital TV decisions were being made, but this is the context in which digital is now rolling out and this is the context in which people are deciding whether to acquire digital receivers. This is the kind of thing we were keen to explore. We wanted to understand what viewers are thinking and what they are aspiring to and where digital might fit into that and where other inputs to TV fit into that.

Mrs BRONWYN BISHOP—We were also having the discussion that says people will not buy simply to get a better picture—some people will; some people will not, I suppose—and then there is the question of content. The issue that interests me is what else you can do with it. It seems to be a kind of mystery yet. We have had the word ‘convergence’ on the radar for a long time but it does not really have a definition—high or standard.

Mr Tanner—Let me make a suggestion then. That cheap end of the market is where a lot of people that I know and a lot of people that I deal with professionally are—people like, for example, my parents. That device is a television and they expect their television services on it. They are the ones that are most inconvenienced and distressed by losing access to the analog signal. They are the ones that need the hotline and the help that the commercial and national TV sectors have been able to offer them where digital causes problems.

Mrs BRONWYN BISHOP—And that is the growing population.

Mr Tanner—That is a big component of the population. Once people are in the market for the high-quality screens there are a number of reasons for that. It is not just watching television. They may want to watch pay TV, play games, watch DVDs—and we have HD DVDs not so far down the track—or play their own digital audiovisual stuff. What I am suggesting is that what you might be seeing at that upper end of the market is a move away from the idea of a television towards the idea of a display into which you plug various inputs that suit your particular taste.

Mrs BRONWYN BISHOP—That works and we do that to a degree—you use your digital camera, you burn your images onto your CD and then you can play it through your television screen.

Mr Tanner—Yes, that is right—through your display.

Mrs BRONWYN BISHOP—It can become a background, like background music at a function.

Mr Tanner—It is like the speakers of your hi-fi. You have all the other boxes that sit behind the speakers. That is what seems to be going on in a significant percentage of viewers' homes. It seems that digital TV has fitted into that picture in a very minor way, but useful for digital roll-out, and that is that there is a general acceptance that digital is the best way to display a widescreen version of current television. At least, that is what we think is happening, anecdotally, but we are hoping this survey will shed a bit more light so we are not just relying on anecdotes.

Mr Cameron—It is also worth acknowledging the other point which I think you were making, and which I think is also very true, and that is that digital is not a single product or service. It is capable of a range of different things.

Mrs BRONWYN BISHOP—Some of which we are not sure.

Mr Cameron—That is correct and, importantly, some of which the broadcasters themselves are not sure—where the commercial proposition might arise for some of the interactive services which can theoretically be offered is not yet clear. There is an ongoing debate within the industry both domestically and internationally about what makes commercial sense to offer in terms of some of these new types of interactive services that can be offered. One of the issues for policy in looking at digital conversion is the question of the extent to which governments can sensibly make judgments about things where the market itself is struggling with those questions of what is attractive to consumers and what balance of services should be offered.

CHAIR—This is where this survey becomes critical. A sample of 1,000 across Australia is ridiculous and totally statistically irrelevant. If that survey was of, say, Sydney only and of people who have already got a digital receiver then you would start to get something that you get some bead from. But with 1,000 people, 90 per cent do not have a receiver.

Mr Tanner—I am not a statistician but I understand it is quite a large sample.

CHAIR—No, it is not. I am in politics. I do polling and I take nothing less than 400 to get a bead on an electorate of 80,000. That is statistically significant. One thousand over 17 million people—

Mr Tanner—Yes, but you are trying to detect a very hard target, which is a few per cent either way choosing a set. We are trying to get some understanding of consumer—viewer—types and practices.

CHAIR—No. You are trying to get some very serious data on what income bracket these people are in, how much they currently spend on subscription TV, how much money they have to spend on upgrades and whether they are likely to spend that money on upgrades. That would be a sample of people who have not currently gone to digital and the impediments to their going to digital. You also want to be seriously looking at a sample of the 500 or so people in a limited area who currently have a digital receiver and what they think of it, because a large part of this is word of mouth. A lot of people are getting their impressions of digital by word of mouth, so if

those who are currently using digital do not think it is a great thing we need to be getting feedback on what they are telling their friends. I do not see your survey as being structurally sound.

Mr Tanner—I am happy to show you a copy of the questions—

CHAIR—That would be great.

Mr Tanner—but I really do dispute that. I suspect you are asking it to do work that we did not intend it to do. If at the end of the survey there are more questions—

CHAIR—If it did not intend to do it then what did it intend to do? I would like to see that survey process. That sort of assistance from the ABA would be very helpful for this committee.

Mr Tanner—I have it here. I am happy to make all this available to you and you can take a look at it yourself.

CHAIR—You could have made a submission and put this in it.

Mr Tanner—I am happy to indicate to you in general terms what our goals are. I think I have put it to you fairly clearly. By getting some statistical insight into the choices Australian homes are making, what they see as the drivers of those choices and what experience they are having around that, we are hoping that will be of assistance to people engaged in looking at the policy settings—which is actually not the ABA at the moment, though it is the government and this committee.

CHAIR—So you have no consultation with the people who will be actually using your statistics and you go off and do a survey? It would be helpful to have a look at the basis of the set-up and the questions in that survey and have an opportunity to input some questions.

Mr Tanner—We have actually told you about this survey and we are happy to consult with you. I am going to show it to you. We have also consulted with DCITA. So it is untrue that we have not consulted with people this might be useful to. I think we have tried to interest you in the research.

CHAIR—Could I have a copy of the survey?

Mr Tanner—Okay.

CHAIR—You are going through a digital channel plan process. Do you want to elaborate on that?

Mr Tanner—Probably the largest role the ABA has in the digital television conversion process is developing a scheme for the actual practical conversion and then rolling out channel plans which provide the capacity to the broadcasters and the additional capacity for datacasting right across Australia. The other key thing we do is consider the digital implementation plans that each broadcaster develops, which basically have the dates and details about how they are making use of those channels. The intention there is to make sure the roll-out occurs quickly.

The ABA is very well advanced in that. We have planned all the main sites in the country. With the exception of the remote satellite markets, we will have completed all repeater sites as well in the next 12 months or so.

CHAIR—By May 2006?

Mr Tanner—Yes. That basically means the main job of actually finding the digital capacity is finished. The industry is following close behind. We have been able to plan just a bit ahead of the industry's capacity to roll out. So, where we plan, the industry will come in behind in the years directly to follow.

CHAIR—Do you get input from industry on determining the channels?

Mr Tanner—We have worked very closely with industry in doing this. We basically have an industry engineering and ABA engineering consultative forum which ensures that our planning is done in a way which is publicly accountable but also takes account of what is best for the broadcasters.

Proceedings suspended from 9.59 am to 10.03 am

CHAIR—We will resume the hearing as a committee, as the Deputy Chair, Julie Owens, has returned. The ABA and I were talking about the digital channel plan process, where the ABA is involved with the broadcasters in rolling out the digital transmitters. They seem to overlap quite nicely with the analog ones. There does seem to be an issue in that, in digital, the signal will go out and be quite clear to a certain point, when you will not get any picture; whereas, with analog, quite far out of where analog is targeted people are still assuming they have TV. Are there areas that really have not been fixed up in the Television Black Spots Program?

Mr Tanner—They might include that, but it is most likely to be people who are living in sparsely settled areas right out on the edge of—

CHAIR—Like Mount Tamborine.

Mr Tanner—No, Mount Tamborine is going to have a beautiful digital signal. In fact, that is part of the issue.

CHAIR—I think that is such a wonderful little sample for research that I am just gobsmacked that you are not going there.

Mr Tanner—I do think that Mount Tamborine is a very interesting test case. If you want to look at how ready the community is to accept digital instead of analog and pay for digital itself, I think Mount Tamborine has a lot of interesting things to tell us. What it tells us partly is that people are not really ready across the country to be told that they have to go out and buy digital if they want to keep getting analog. I think that is clear. But the fact is that it also tells us that it was not the end of the world. When it was put to them that there was now a very high-quality digital service and that this was the only way to improve their reception for good, the fact is that it settled down. The industry hotline process and the information coming from local members of parliament seem to have been sufficient to prevent a complete public relations meltdown. My

feeling is that back in 2001 when we started there would have been a meltdown, but I think digital now has a sufficiently good brand that that message was saleable. So there might be some messages, but they are really messages about how you move from analog to digital. In general, across Australia, that is not where we are up to. That is really not a space we are in. We are really trying to work—

CHAIR—It is a space that this committee is in.

Mr Tanner—But that is not where we are researching. However, I accept your point that it is an extremely interesting and a potential source of insights test case of analog to digital.

CHAIR—Although an electorate office has not been inundated with calls, that issue could still be running; it could just be that people are saying: ‘We’ve got that. This is as good as it is going to get.’

Mr Tanner—Yes.

CHAIR—You cannot say: ‘Wow, those people at Mount Tamborine are all singing, all dancing. They love it. They are so impressed. Why didn’t we go digital before?’

Mr Tanner—The best you could say is that they copped it. I think what you described is exactly right. It was not made a bigger deal than Ben Hur. It was not splashed all over the Gold Coast Times or whatever it is called. What happened was that a lot of word-of-mouth channels were briefed. All the technical people in the area knew what was happening. All the TV broadcasters knew the script. The local MPs, at least the second time round, knew the script. So anybody who had a concern would have quickly encountered someone who knew the answers and knew what the deal was. That was the issue, and that is the way it appears to have been managed. It is not a model for what we want to do elsewhere in the country. It was never intended as such. It was hopefully an absolutely unique, intractable problem, that we just could not put in all those digital services and, using digital, fix the black spots once and for all without genuinely wiping out a few people’s enjoyment of weak analog signals.

Mr Cameron—This discussion does reveal one of the interesting policy questions about digital conversion—that is, the extent to which the government would sensibly approach conversion to digital with a view that it is appropriate to mandate and force conversion on consumers, in which case the sorts of concerns and issues that were experienced at Mount Tamborine are clearly very relevant. There is also the question of the extent to which it is preferable—which has certainly been the emphasis to date—to leave conversion to be a matter of judgment by the consumers based on the offerings they have and their having an ability to make that choice over time. Clearly, those two will result in quite different time frames for, and quite different approaches to, digital conversion. One of the interesting questions that the government will be considering in the context of the review of the simulcast period—which has to occur in the second half of this year—will, I am sure, be the extent to which analog offers something that should be driven from government regulation as opposed to being driven from consumer and competitive forces.

CHAIR—That is why this survey is very important. You have gone with Eureka Strategic Research. What sorts of instructions have you given them? Did you clear it through the ABS survey process?

Mr Tanner—The ABA has a fair bit of research expertise in house, so we developed it in consultation with, in particular, the department. As I said, we are happy to show you what we have got up to.

CHAIR—That would be helpful.

Mr Tanner—The ABA makes extensive and regular use of attitudinal research. It is generally not about digital issues. Generally, the reason we do that is that we are the custodian of the self-regulatory codes of practice. It was always intended that the way the broadcasting regulatory scheme would work is that the regulator would use tools such as attitudinal research to find out to what extent the codes were in touch with community perception. We regularly look at what the community feels about bad language on the radio or violence on television—all those sorts of issues. At times we produce monographs on that too. Commissioning this kind of research is a core area of competence for the ABA.

CHAIR—You do not give any reference to the ABS?

Mr Tanner—We use ABS material when it is available and when it is useful.

CHAIR—But you do not get them to qualitatively and quantitatively look at your survey questions to see whether they will be giving you the results you want? You are relying on Eureka to do that?

Mr Tanner—No, we are relying on our own internal expertise to do that.

CHAIR—To say that the questions you are asking the sample group will give you the results?

Mr Tanner—We employ qualified researchers. We have one with a background in psychology and another with a background in epidemiology. These are people who have worked professionally commissioning research and understand the uses and abuses of attitudinal research.

CHAIR—Is that survey of 1,000 people targeting those with a digital receiving device or people without one?

Mr Tanner—We are interested in people who have not upgraded to digital anywhere in their home to find out why not and what they are thinking. We are interested in people who have upgraded and what their experiences are. We have a tree of questions. Basically the questions start: ‘Do you have a television?’ If not, ‘Thank you very much.’ But we are expecting that 99 per cent will answer, ‘Yes, we have a television,’ and it will begin from there.

CHAIR—Given the way you have set this survey up, what will be the sample size of people who currently have a digital receiving device in their house?

Mr Tanner—Statistically, you would expect that out of about 1,060 people—which is actually what we have—12 per cent would have digital. But we are going to have a second phase where we will boost that group to about 300 people who have digital television receivers, and we will have a series of questions of them.

CHAIR—When will that research be available? We can have a look at this stuff in August, can't we?

Mr Tanner—It is the same piece of research. I expect it all to be ready. I apologise that it seems so small to you but this is a big piece of research. It will cost the ABA \$100,000 or so. That is about as big as it gets for the ABA in terms of doing attitudinal research.

CHAIR—So you are door-knocking this, rather than telephoning it, at that price?

Mr Tanner—I am not sure whether it will be telephone or door-knock. I will have to take that on notice, I am sorry. I chose not to bring here today my head of policy, who has done this work. I thought I would work from this brief.

CHAIR—You thought you would suss out what we were after?

Mr Tanner—Maybe, yes.

CHAIR—I think we could use a bigger sample of people who currently have a digital device. We are getting a lot of submissions from people who have digital, and we have had a few from people who do not, but the impression we are getting from the submissions is that people are very underwhelmed.

Mr Tanner—That should come through. I think that a group of 300 will be able to give us pretty clear evidence to support that, if that group is underwhelmed. As I said, we get a lot of anecdotal information.

CHAIR—But I want to know why they are underwhelmed. Are they underwhelmed because suddenly their DVD and VCR do not work? Are they underwhelmed because suddenly they have to have four different aerial plugs into the back of their TVs to make all this kit work? Why are people not impressed with digital? I know when they came around this building in 1998 flogging it, all the pollies were in the main committee room having a look at it and going: 'Wow!' No-one else seems to be quite so impressed.

Mr Tanner—We are interested to know what they are thinking—both positive and negative—and we are asking a range of questions designed to work out what they were looking for and what they think they are getting. I will deliver the questions to the committee.

CHAIR—Are you happy that that survey is really going to nail that?

Mr Tanner—I think the survey will shed a lot of light. It may very well invite further questions, which might suggest further research, but I think it will shed a lot of light.

CHAIR—We are hoping for this committee to report by October-November. So if you could start moving along that way now so that we can get that in August it would be helpful.

Mr Tanner—We are doing the survey. We did not do it in response to this committee, but I hope that it has been fortuitous for you as well as for us. I am happy to share the questions with you and to engage with you about what you are looking at.

CHAIR—It certainly could be fortuitous.

Mr Tanner—This is a government agency which is committing \$100,000 to this research. We believe it is timely and valuable to the policy processes that are now ongoing—not only yours but the ones that James is working on in the department.

CHAIR—This committee and this inquiry is part of that policy process.

Mr Tanner—We have done our utmost to shed some light. We are happy to hear from you.

CHAIR—I think that survey would be very helpful, especially if it picks up a few of the things that we have mentioned. In relation to the implementation of the plan process, it is pretty much on track and is happening mid next year?

Mr Tanner—We will have finished the channels, but the actual roll-out will not finish until some time later. Basically, we now have 85 per cent of the population covered with the whole ensemble. The coverage just by the ABC or by the nationals is a lot higher but that is probably not so significant. I think there is a bit of evidence that people are not really interested in digital until they get the whole ensemble that they can get on analog.

CHAIR—What is the deadline for implementation? Presumably that will be before 2008.

Mr Tanner—The year 2008 is the metro date. In regional markets the eight years start from a date between 2001 and 2004. So it is possible that some of the roll-out may not be finished until 2012 in some regional areas, but I would expect that that would be repeaters, not main stations. We should have the great bulk of the population covered very quickly; we already have 85 per cent. But I do not believe it will be entirely complete until 2012. The conversion scheme actually says that, during the eight years, they have to achieve the same coverage as soon as possible. That is relatively easy in markets that have one or two transmitters, such as Darwin or Adelaide, but it is an enormous challenge in some of the aggregated markets or in Tasmania, where you might have dozens or even 60 or 80 transmitters. It is an enormous logistical piece of work.

CHAIR—That is where the cost factor for the dual broadcast is hurting the broadcasters.

Mr Tanner—Yes. On that issue, you could probably roll this out faster if they threw more money at it. What we are often looking at is the cheapest way to achieve the same coverage to do this in an orderly way.

CHAIR—But if they had the certainty of a switch-off, so that as of 2008 they could make enormous savings in their double broadcasting, would that be an incentive for them to roll faster?

Mr Tanner—That is really not on the agenda yet. I do not think any country in the world has seriously countenanced an analog switch-off until the percentage of people using the analog system is very low. In Australia at present we are at the bottom end of the S curve in terms of digital uptake—it is just not on the horizon. I would not be talking up the prospects of turning off the analog system unless some serious thinking had been done, and I would expect that the government would be the place where that thinking was done, about what the criteria were for when we no longer need that analog system.

CHAIR—So the ABA's position is to extend the analog signal for how long?

Mr Tanner—No, that is the minister's role and, as we understand it, those issues are under review.

CHAIR—But the advice you are obviously giving to the minister is to extend the analog period.

Mr Cameron—There is a requirement under the Broadcasting Services Act for a review to be conducted in the second half of this year about the simulcast period. The primary question for that is whether the simulcast period should be extended. The government has not commenced that review process and the department has not provided advice to government on that issue, although I think it is worth noting that the minister, at Senate estimates last week, acknowledged that it is difficult to see a closure date of 2008 happening.

I want to go back briefly to your comment about the cost of dual transmission in regional markets. Certainly the government is conscious of the fact that, because they have many more transmitters and a lower population, that cost is a significant cost in those markets. When the digital conversion framework was established, the government committed to providing around \$260 million over the eight-year simulcast period to regional broadcasters, which essentially provides them with half the cost of the capital and ongoing operation and maintenance of their digital transmission services. So, while the government acknowledges that that cost exists, there has been a contribution from the government to that process.

Mr Tanner—So, in fact, the ABA has not given any formal advice on this question because the review has not yet occurred.

CHAIR—But I can get the impression what your advice would be if you were asked for it now.

Mr Tanner—It would be commonsense, wouldn't it? Would you have any different advice?

CHAIR—No. From the submissions coming in, I think there are a fair few people who would like to see a 2008 switch-off. There seem to be two very different camps.

Mr Tanner—There are tremendous benefits both to broadcasters and to the wider community in moving completely to digital. It is an enormously more productive use of spectrum and there will be a huge thing which, worldwide, is being called the analog dividend—that is, large amounts of the radiofrequency spectrum now being used wastefully for analog could be used efficiently for digital services. But we are dealing here with an essential service. The analog

television system is the nation's audiovisual PA system. It is about as significant to people as having hot water on tap. It is not something that you lightly switch off. We all know that. If you look at the way the law was written at the time the digital conversion scheme was designed, you will see that it is very big on how we get the signal out—it is very detailed and very prescriptive. But all it says about how you actually effect the conversion is that the minister can prescribe a date later than 2008, but it could be as few as eight years, and that the ABA shall decide which channels are used for which in that environment. In other words, it is very light on detail.

At that time, in 2001, there were no countries anywhere in the world that had successfully made this transition. Now, in 2005, we are seeing cities convert in different parts of the world which have very different ways of enjoying their television. But we are yet to see a major economy convert, either. We are watching market leaders like the British. I think we have a lot to learn from the experiences they have. But I do not think anybody underestimates the size of the job of winning people from the analog system to the digital. I am not thinking of people like, perhaps, Mrs Bishop and me, who are interested in the new options. I am thinking of the 30 or 50 per cent that are very happy with what they have and see the TV as a long shelf life item which they can then put in the teenager's room or out in the garage and still keep using. So I do not underestimate any of those questions.

Ms OWENS—I just want to pull back a bit. I know that I certainly am still wading through a range of different views that are quite contradictory. Given that you guys are actually experts and across this, I want to pull back a little bit and see if I can get some summaries for me. In the submissions, particularly from the consumer end, there seem to be three different issues. One is from a number of people who have gone digital, who say the signal is not what it is supposed to be, there is pixelation, there are drop-outs, there is interference et cetera. But I also hear from various industry bodies that the roll-out is actually going quite well. So I would just like to get an indication of whether it is going as well as it should be and whether there is still great improvement to take place in terms of that problem. Shall we deal with them one at a time?

Mr Tanner—That might be best.

Mr Gengaroli—Basically, the ABA planning for digital, as has been the case for analog, is based on certain worldwide assumptions. One of those assumptions is that people actually have a television antenna installed somewhere outside the house rather than using indoor antennas or rabbit ears and things like that. I know for a fact that if people do use those antennas and have a good sound installation then the problem with digital drop-outs is very minimal, virtually nonexistent.

Mr Tanner—If there is a planned digital signal in the area.

Mr Gengaroli—Yes. I talking about, as Mr Tanner said, when there is a planned digital service in the area. However, when you convert that to a situation where you have rabbit ears, it depends very much on the construction of the home, the area that people are in, the exact location in the room where they might be trying to watch television, interference from, perhaps, power wires behind the walls and so on. We did run a test at the last ABA conference deep inside the Hyatt Hotel in Canberra, Yarralumla, where analog was not getting through at all—it was basically a totally unwatchable signal. A rabbit ear antenna with a set-top box actually provided, I would say for 98 per cent of the times, a very steady, good picture.

Mr Tanner—That two per cent can be very frustrating.

Mr Gengaroli—That two per cent could be frustrating.

Ms OWENS—That is exactly what I am hearing. I am hearing that the signal is good and that the picture is good. But I am hearing from consumers that they bought the thing and they had to then go to the expense of the aerial. It still did not work and when the sport events were on it was worse, and the signal came and went. I do not know whether I am hearing from a very small dissatisfied group of people or whether they are an indicator of a large group of people. Clearly the ones that are pissed off would write in first. I am trying to get a sense of whether or not there is actually a greater problem.

Mr Tanner—Fred has put his finger on one major issue, which is that we actually plan for a standard receiver, which includes a rooftop aerial. A lot of people get away without that but then find they have some reception problems. I do not know which services they are listening to and whether they are services that are planned for reception in that area. They may be enjoying fortuitous reception. Analog greys out. Digital turns off and on because of the cliff effect. It is either there or it is not. It is pretty maddening if it is sometimes there and sometimes not.

Ms OWENS—Just when the try is taking place.

Mr Tanner—I do not want to really start this here but I suppose there are also issues about the actual equipment they have and how they are using it. At the moment, we have a pretty free market in digital set-top boxes. There is a vast proliferation. There is an ongoing discussion involving the department of industry about the role, if any, of some sort of conformance testing centre. But at present there simply is a market. I suppose I cannot rule out that a component may explain the way that particular pieces of equipment are working. So it is a bit difficult without drilling down a bit into what is happening there. There is a fair bit of evidence, and we are fairly satisfied—again this is anecdotal; it is all anecdotal—that the great majority of people in planned digital coverage areas with a working box are going to get a five out of five digital picture.

CHAIR—With or without a roof antenna?

Mr Tanner—Whether they can do with or without is a matter of luck. We plan a signal which requires a roof antenna but many people will not need one. But if they have a problem it is no reproach to our planning.

CHAIR—On upgrades of the antenna: when you say ‘with an antenna’ can it be the old analog one you were using or do you have to upgrade it?

Mr Tanner—It should generally be the old one.

CHAIR—A lot of people are saying that they have had to spend \$70 to \$100 on that.

Mr Tanner—They may not have a working antenna. When you look on people’s roofs there are forests of equipment up there, some of which is not plugged in, some of which is broken. In general, we try to use the same family of channels for digital as are used for analog, which means that the aerials which would have originally been chosen all those years ago to suit the

particular analog channels—they will be different between areas because there are different bands used—will generally work for digital. But there will be exceptions. It may very well be that what the digital problem is showing up is an inadequacy with the rooftop equipment. There are multiple potential causes.

CHAIR—You say it worked in the Hyatt—presumably between nine and five?

Mr Gengaroli—Yes.

CHAIR—But what about in peak hour? Was anyone there watching it from six to eight?

Mr Tanner—There should not be a peak hour problem.

CHAIR—There is no peak hour problem?

Mr Tanner—This is telecommunications thinking; this is not—

CHAIR—This is a submission that came in. I wondered how that could be possible. Is it just not possible?

Mr Tanner—Point to multipoint: it is there for everybody. You can get three million people using it at once. It is not like water.

CHAIR—Why would people with a digital signal be experiencing that? Why would they find that at peak hour it is not worth watching? Why would that be people's perception?

Mr Gengaroli—I cannot think of an explanation. The major reason why people's digital picture might freeze from time to time is because the amount of signal that they are receiving is so close to the threshold of failure. Because of the cliff effect, if you are just above the threshold you will get crystal clear, perfect reception—five out of five—but if you are just below it it starts freezing and you get practically nothing. That—

CHAIR—But people are saying that it is great at low demand but—

Mr Gengaroli—No.

Mr Tanner—We cannot think why that would be true. It may just be a feeling they have.

Ms OWENS—I suspect that because they are quite often talking about sporting events they are watching it and so that 30-second drop-out when the try is happening actually matters, whereas at the other times they are just wandering around or doing the washing-up.

Mr Tanner—We cannot think of an obvious explanation. It is not like water or electricity. There is not a finite capacity. If you are in the coverage area, you should be able to cram 20 million TV sets into Sydney and still get good pictures.

Ms OWENS—But the answer to my question really is that there probably are lots of reasons why people are not receiving the signal, so the stories that we are getting may actually be quite widespread but they may be about issues that they are not aware of that are not to do with the signal. For example, retailers may not be telling them about the aerial issue.

Mr Gengaroli—That is right. In general cases, where people receiving analog may experience problems because of reflections from other buildings and things like, digital works to improve the picture and to provide a better signal. Multipath problems in general terms are fixed in digital.

Mr Cameron—It may also be the case that people have traditionally accepted a degree of variability with their analog coverage.

Ms OWENS—And they have spent years getting it right.

Mr Cameron—Yes. You have your shadow effect and people live with that and that shadow effect may be worse at different times; whereas with digital, as we have indicated a number of times, it is either very good or has a clear degradation.

Ms OWENS—There is nothing: I understand.

Dr Pelling—It is worth making the point that in a review like this you pick up a lot of the negative side. But, to pick up Fred's point, there have been a lot of improvements to people's signals, which of course you would not necessarily hear about.

Ms OWENS—That is exactly my point. I know that people who have bought it and then sent it back to the store would be far more likely to write in. I just wanted to get a picture—

Mr Tanner—You do not want to lose the wood for the trees, too. All the evidence we have is that Australia made a thorough and careful choice of the best extant digital standard. We chose a better one than the American one. Countries that have chosen the American one are still agonising over whether to change to the European one, not the other way—no-one has ever questioned it. We have planned this in our traditional, very conservative way, and that is maximising the delivery of a signal, as far as we can. We have erred on the generous side. It is not a panacea; it does not fix all black spots magically. It does fix multipath, but it does not necessarily fix a completely weak or absent signal in a hollow.

Mr Gengaroli—Shadowing, yes.

Mr Tanner—So it is not a panacea. It may highlight, in a new and irritating way, existing problems either with the signal coverage or with the quality of the reception equipment that the consumer has. So naturally there are going to be people who think: 'Look, this is perfect. It has to be perfect. I'll get it. I can get a bit of analog. Gee, I'm really disappointed.' But I do not believe that the technical quality of the planning, the roll-out or the transmission is really of low quality, if you step back. I think it is a pretty robust system.

CHAIR—In your planning process, you are going out now with the digital signal at a certain strength and then, when the analog is switched off, you will increase the strength of the digital?

Mr Tanner—In some cases, yes, but in general we are trying to do it so that it is at maximum strength already. There are a few cases where that is inevitable but, because of the way signals propagate, even at half strength you cover about 90 per cent or 95 per cent of the same area.

CHAIR—So there could be some of that.

Mr Tanner—There is a bit of that, but in fact we are planning at very high power. This is a big difference between the Australian and, say, the British roll-out. Because we have so much spectrum here, we have been able to plan for the same coverage, in general, while the analog is still on. But there will be some exceptions. There will be exceptions in the bush, say, where you have a very wide coverage VHF signal. It might not always in every case be possible with one transmitter to get exactly the same coverage. Also, I think we have already mentioned the cliff effect. There will always be people on the margins who regard their very grey, fuzzy picture as adequate and wonder where their digital signal is. Those are problems for analog switch-off. They await us down the track and they are very real, but at the moment we are inviting TV networks to operate at extremely high power, with very few exceptions.

CHAIR—What about the plan to go with an existing rooftop aerial as being sufficient—that seems to be a problem for people living in multidwellings, in large unit blocks. Are there any solutions?

Mr Tanner—There is a set of different issues around that, I think.

Mr Gengaroli—That is right. You are absolutely correct; that is a difficult issue. It is not an issue that has not been discussed. In fact, from the very beginning, it has been discussed at forums like Standards Australia. In fact there is a committee that looks into this particular problem. The problem is that you have a head-end receiver that receives the signal and then reticulates or distributes it amongst all the dwellings. It depends on what system has been used—whether, for example, it is one that can take account of all the channels being received or just the ones that were being received at the time. For example, in Sydney for a long time all you could receive was channels 2, 7, 9 and 10 and then 28 came about later on. So some dwellings—some of those high-rise buildings, for example—might have an amplifier that can only receive channels 2, 7, 9 and 10. So when we start transmitting in digital channel 6, channel 8, channel 11 and channel 12, they are not receivable per se. In some cases, that is the problem. In other cases, there might be other problems of that nature. That really is probably an issue for a body corporate or for somebody—

CHAIR—What is the cost for a body corporate to fix that? What sorts of costs are you looking at?

Mr Gengaroli—Assuming that the cabling is okay and that coaxial cable runs through all of the apartments and so on—if the antenna is fine, the antenna can remain—it is simply a matter of perhaps replacing the head-end amplifier and the distribution amplifier. We are talking about probably a few thousand dollars.

CHAIR—Other than DBA, where can consumers go to get that sort of information about how to spend their buck to fix it?

Mr Tanner—I would expect technicians in the industry—

Mr Gengaroli—But, for example, my mum lives in an apartment in Sydney and she cannot go out and change things without the body corporate's approval. It is something that has to be done at that level rather than individually.

CHAIR—But where would the body corporate go to get some—

Mr Gengaroli—To any technician.

CHAIR—Have you done a survey about the advice they are giving being accurate? You are getting different costs from different people as to how much it would cost to buy their thing, and then they would have to pay various amounts of money to get it fixed—anything from \$70 to \$700.

Mr Tanner—We see that as being more DBA's role than ours, but the ABA are mindful that we do have an information role. We tend to look at the roles being played by, for example, the broadcasters, who we see as the principal players here. We look for ways we can augment what information is already out there. While we do make information available which is of use to technicians, such as information about where and when signals will become available, we in general do not systematically engage with TV technicians. That is something we have left to other parts of the digital conversion process, such as DBA, to do.

Mr Gengaroli—Some do call us to get information and we then offer it. Quite a lot of information is also available on our web site about different roll-outs and new implementational plans that are just about to be implemented and so on. There is ongoing information in the planning section of our web site about that.

Ms OWENS—That is linked to my second point that comes clearly out of the submissions as well, which is the technical side of it: the range of equipment, whether it is compatible, the different time stamps, for example—lots of little issues that are very much to do with the range of the equipment, the slowness of setting common standards et cetera and also, I guess, the antenna issue, the emergence of the installer and that sort of stuff. I am wondering whether that side of the industry, the coming together and forming patterns and solutions, is coming along at the kind rate that we need it to come along. I know it is not really you; it is the DBA.

Mr Cameron—There clearly are a range of issues emerging in relation to the customer equipment that is out there. As a starting point, I think it is worth acknowledging that there is a clear standard that operates in Australia. It is a standard that the broadcasters comply with in the broadcast stream, as it is called, that they put out and that equipment manufacturers comply with in terms of the equipment.

Ms OWENS—But the interactive standard, for example, is quite recent. There would be bits and pieces—

Mr Cameron—That is correct. However, within those standards there is a degree of flexibility for both manufacturers and broadcasters. That flexibility is primarily designed to recognise that that is the source of innovation in relation to the product and service offerings that

they want to offer. The concern arises where customer equipment, for example, is produced to operate within effectively a subset of that standard—in other words, they choose the variables within that standard in a way which does not necessarily mean there is a capacity to receive all the sorts of signals. Therefore, there is a balance to be achieved between wanting to leave room for that competitive dynamic and innovation in product offerings, both from broadcasters and manufacturers, and trying to move towards an environment where there is a degree of assurance to consumers that if they buy basic equipment then they will be able to receive those basic services that are available.

The primary mechanism through which that is being worked towards, apart from the ongoing interactions at that Standards Australia level and DBA, is discussions within the industry which the department and the ABA are also involved in about establishing a testing and conformance framework. That testing and conformance framework, whether it be a separate institution or just an agreed set of procedures, will allow manufacturers, if they are bringing in new equipment, to test their new boxes against the various broadcast streams which are currently being offered in Australia. It will allow broadcasters who might want to introduce new innovative services to be able to test their broadcast streams against the boxes that are in Australia and it will also allow a movement towards a greater level of understanding of what the appropriate variables are.

The government's concern obviously is to ensure that consumers get that degree of assurance that their equipment will work. We are also concerned to ensure that such an arrangement is not something which can effectively prevent innovation, that it is an open managed arrangement where not only broadcasters but manufacturers are involved.

Ms OWENS—I would expect that in time the market would sort itself out, because as that 30 to 50 per cent you were talking about come in they are going to want an easy choice not a complex one. I would imagine that in time it is going to be sorted out. My question is really whether or not it is progressing on a kind of time line that might make it possible by 2008?

Mr Cameron—It is fair to say that the government would obviously hope to have those arrangements in place as early as possible. The government has had some discussions with the industry in the past. It is in fact an election commitment for the government to work with industry in this area now. Certainly we would want to see arrangements being established as soon as possible. Clearly we are getting to the point in time when the range of equipment being imported or produced for the Australian market is getting large enough that the set of testing and conformance arrangements is becoming critical. In the earlier stages of the market where there was a relatively small number of boxes and importers and manufacturers there was a higher degree of understanding of what equipment was out there and what it could and could not do.

CHAIR—That has also led to people being disappointed with the equipment that they have bought. A testing and conformance centre is essential into the future with this whole technology. In one of the submissions, one of the things the submitter really wanted from the free-to-air digital was basically a weekly program guide. The idea was that you could see your program guide, set your VCR for all the programs you wanted for that week, record them and watch them when you wanted to. It seems a very attractive thing that would influence people to go to digital. However, if those programs were on four different stations the different time signals on each of those threw his VCR out so he ended up recording things he did not want. There was a real confusion between the broadcasters and the recording.

Dr Pelling—That is a remarkably difficult thing to set up. In the pay TV industry, for example—

CHAIR—It is a big drawcard for people to go to digital.

Dr Pelling—I agree.

CHAIR—That is the sort of thing people expect from digital. This is the add-on from analog—like wow!

Dr Pelling—It is easy to do in a pay TV environment where the pay TV provider controls the environment in a very closed way and can provide everybody with an electronic program guide and a set-top box that has the software in so that when you select something with the green button it will go to that channel. In the free-to-air environment, where it is not vertically integrated—it is a horizontal kind of environment—you need a high degree of cooperation between everybody to achieve that.

Mr Tanner—These are competitors. This is a bit of a holy grail.

CHAIR—So they deliberately set their clocks at different times?

Mr Tanner—You watch the way they program. You try to tune into your favourite program and then switch channels. I think you will find that one program will have overrun slightly. They are competitors. It is very challenging in a horizontal market where you have five networks that are competitors—particularly three that are competitors—to achieve overnight, or even over several years we have found, agreement on what an electronic program guide that could operate personal video recorders might look like. Remember that the personal video recorder may be a threat to the revenue stream of television as well. It is a very difficult thing to achieve in a horizontal market.

CHAIR—That is where the testing and conformance centre is really essential to get this stuff squared away to build consumer confidence to go out and buy the stuff.

Mr Cameron—A testing and conformance centre will not necessarily deal with those sorts of issues. As Giles indicated, those sorts of issues go to a range of competitive issues in the market. A degree of cooperation between the broadcasters might involve essentially making it easier for people to move off their channel onto another or for people to record their program and watch it later and skip the ads. That is a real commercial issue for those broadcasters. It is also worth acknowledging that there is a range of underlying issues in relation to what we call digital rights management. The underlying copyright holders of a lot of that content, whether it be the Hollywood movie houses or other organisations, are very concerned about the way in which people may be able to record and in theory on-supply digital content. Unlike analog, where it is on the VCR and the quality of the picture declines as you record it and record it and record it, in the digital environment it maintains its quality. In fact, many of the barriers to issues such as being able to record content are associated with the desire of the underlying copyright holders to maintain the integrity of their control of the copyright arrangements. There are a range of issues in the mix that make getting solutions extremely difficult.

CHAIR—But that is an essential part of a testing and conformance centre. You were saying that HD DVDs are coming on the market in the future. Everyone is competing to be the first plug in from the aerial. At the moment we are all quite used to plugging the aerial into the VCR. Now digital TV, the set-top box, wants to be the first into the TV. Where does it leave your DVD and VCR? Those are all the issues that I thought the testing and conformance centre would be addressing—where the digital receiver is and how it relates with all the other equipment you have.

Mr Cameron—In a customer's environment they generally make the choice about where their equipment is in that linear stream from the aerial to, in the end, the television set.

CHAIR—But they can all work together; they are all interoperable and they can all get the over-air downloads.

Mr Tanner—Let us draw back a bit just to get this into perspective. Digital TV has a number of potential selling points. The ability to have EPG style—electronic programming guide—functionality connected to a personal video recorder is particularly challenging for this horizontal market to produce, for reasons that James mapped out, but it is actually only one of the potential things that are attractive about digital. A number of the features of digital are still at the early stage. High definition itself is still in a bit of a chicken and egg situation around supply of enough content and the cost of screens, but there is every indication, looking worldwide, that it is a winner and that it will actually be an enormous driver of demand for digital at some point in the future. Widescreen, which is something analog can do up to a point, is at the moment an enormous driver. People are attracted to the idea of perfect reception, which is why I think people who are not experiencing that are feeling very upset.

I do not like to see digital TV as being about this application or that application. I do not like to take the view that it is about coming up with an EPG style environment in which we somehow turn the free-to-air industry into something more like pay—with an almost proprietary or client relationship with the boxes in everybody's home and an enormous level of control and cooperation over metadata about all the programming going to those boxes. That is something which digital could theoretically do. Interactivity is another emerging application for the future but one which I think also faces some of the problems that EPG faces. So there are many potential edges that digital has over analog. And, yes, EPG is potentially a very attractive consumer feature, but it is one which this horizontal market has to work through a lot of very complicated issues to resolve. There is in Sydney, on a trial basis, a VPG—a video program guide—on air as part of the datacasting channel. That has been secured through cooperation between broadcasters, but it is only available on the datacasting trial in Sydney at the moment.

Ms OWENS—The third issue I would like to raise is about content. Probably two out of three of the consumer submissions from those who have not taken up digital involve the lack of difference in content. Arguably, these are from people who do not particularly like the content on current free-to-air TV anyway, so there is probably an inherent bias. But a consistent issue is that there does not seem to be anything on the current digital service other than what they have on analog, only it is a bit clearer. When the roll-out was first planned, quite a bit of restriction was placed what the free-to-air broadcasters could do in terms of content. Are we are likely to see—and again I guess I am asking for an opinion from you guys—an increase in content, an increase in the range of services through digital's increasing interactivity? Are the free-to-air likely to go

to the edge of what they are allowed or is the regulation a barrier to them exploring it further? Does that question make sense?

Mr Cameron—Yes. I should preface my comments by noting that I said in my opening statement the department is not in a position to talk about some of the regulatory options. I think it is fair to say that some of the broadcasters have experimented with a range of opportunities to provide additional content. Obviously, the national broadcasters are taking advantage of their flexibility on multichannelling and they have expressed the view to the government that the genre rules that limit the range of programming they can offer on digital multichannels is an issue for them, and that is obviously an issue that the government needs to consider in the context of the multichannelling review. In relation to interactive and other services, as I mentioned, the commercial broadcasters have experimented with a number of interactive services, but it is fair to say that the commercial opportunities associated with them are still being explored.

Ms OWENS—So there is room still—

Mr Cameron—There is clearly further room in those sorts of areas. But again it is worth acknowledging that there are differences of views from the commercial broadcasters about whether the regulatory arrangements represent a real restriction.

CHAIR—Whether that is an inhibitor to consumer take-up is something that the survey, properly worded and targeted, could find for us.

Ms OWENS—It is more whether it is an inhibitor to the stations—

CHAIR—The US is mandating digital receivers in all new televisions. TVs are being sold left, right and centre at the moment and we are not going to have any say on that.

Mr Cameron—The US has gone down that route. There are a range of policy questions associated with whether digital tuners should be mandated. That obviously has an impact on the range of product available in the market, particularly at the low end of the market where digital equipment may not easily be able to replicate the low end prices of the current analog equipment. However, it is an issue that the government would need to consider.

CHAIR—I am sorry, we have to go to the House for a division. Thank you very much for appearing before the committee today.

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

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

Committee adjourned at 10.50 am