



COMMONWEALTH OF AUSTRALIA

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, 14 September 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 Hayes, Miss Jackie Kelly, Mr Laming, Ms Owens and Mr Ticehurst

**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**

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**Committee met at 9.22 am**

**JONES, Mr Keith, Chair, Committee CT2, Broadcast and Related Services, Standards Australia**

**TEGART, Mr Alistair David, Group Manager, Communications, Information Technology and e-Commerce Standards, Standards Australia**

**CHAIR (Miss Jackie Kelly)**—I welcome the representatives from Standards Australia. Do either of you have anything to say about the capacity in which you appear today?

**Mr Jones**—I am actually employed by Panasonic AVC Networks, but I appear here as Chair of CT2, which is the broadcasting and related technologies committee responsible for the development of standards.

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

**Mr Tegart**—We have not formally prepared a submission to the committee. We were invited to present on the basis of other people's submissions, I believe. A general statement on Standards Australia is that we are Australia's national standards body. We produce standards across a wide variety of areas. We are Australia's national body, representative at ISO, IEC and also the JTC1 committee on information technology. My group at Standards Australia produces standards in a wide variety of areas under the banner of communications, IT and e-commerce, including the broadcasting standards.

**CHAIR**—We have heard a lot of evidence about MPEG2 and MPEG4, obviously. Could you fill us in on the technicalities and issues there?

**Mr Tegart**—CT2 is the broadcasting committee, which produces the broadcasting specific standards. Those MPEG standards come out of another committee, IT29, which deals specifically with the MPEG and JPEG standards. So we also participate quite heavily internationally in the development of the MPEG standards, although in recent years in our international participation in the MPEG arena the emphasis has been around MPEG21, which is the digital items and digital rights management component of the MPEG series.

**CHAIR**—Could you expand on that a bit?

**Mr Jones**—Maybe I can expand. The standards are written for the Australian broadcast environment basically by taking DVB, or digital video broadcasting, standards that come out of Europe. Those standards at the moment include MPEG2 as the basic method of delivery for the video; it can deliver the audio under that standard as well. The CT2 itself has written two standards that cover the digital broadcasting environment in Australia. The first is a transmission standard, which is also called up by the legislation so that the broadcasters must follow that particular standard. That standard is developed, if you like, like a toolbox, by taking the DVB

standards which we have adopted in this country as our broadcasting standards and putting into the standard those things that are required in the Australian broadcasting environment.

When the standard was originally developed, there were some deviations from DVB which now no longer really exist. One of those deviations was the adoption of Dolby AC3 as the multichannel delivery for audio. Representatives from the broadcasting community in Australia are also represented on DVB and successfully got DVB to adopt Dolby AC3 as one of the alternative deliveries for multichannel sound as well, so that deviation ceased to exist.

Our broadcasting environment in Australia at the moment and the DVB standards basically cover MPEG2 video streaming, but there is a lot of talk and a lot of movement in looking at incorporating into the DVB standards MPEG4 or H264, which is probably more the appropriate terminology. H264 is a variant of MPEG4 which allows much higher compression rates, which would then allow particularly high-definition broadcasts to be broadcast with a much lower bit rate than they currently require. As yet, there is no MPEG4 environment that I am aware of around the world, but there are a number of organisations and companies internationally that are considering broadcasting using that newer standard with the much higher compression ratios. I believe that DVB will almost certainly incorporate that into their broadcasting toolbox, if you like, at some time, probably in the not too far distant future.

**CHAIR**—Five, 10 or 15 years?

**Mr Jones**—Under five years.

**CHAIR**—An issue has been latency and the failure of consumers to buy set-top boxes, for all sorts of reasons. They are hanging out there to leave it as late as possible. Do you have any comments on that? If it is only five years, are some people going to delay buying their set-top boxes even further?

**Mr Jones**—First, I do not know if the take-up of digital technology right at the moment is related really to consumers' understanding of things like MPEG4 or H264. I think it is more related to other issues. I suppose, representing this from a standards point of view, you have plenty of other submissions that have gone into those other issues. On the other hand, in terms of consumer protection, I would have to say that there is nothing which should preclude future developments in Australia moving towards maybe utilising these higher compression ratio standards without having to make existing broadcasts using MPEG2 obsolete. My own view is that these things can coexist. So I do not believe it should really become—or should be being seen as—an impediment to the take-up.

**CHAIR**—But they cannot really coexist in the seven-megahertz spectrum available because of SD streaming, if you continue MPEG2, and then want to put in MPEG4—

**Mr Jones**—Under the current grants of spectrum to the broadcasters, that is correct. There would have to be changes to those.

**CHAIR**—Is that a submission? Why not give them more spectrum?

**Mr Jones**—No, I am just saying that what you are saying is technically correct.



**CHAIR**—If you hold them to seven megahertz, what are some of the options? If you are stuck with seven megahertz to work within over the next five years, till MPEG4 becomes a possibility, what are some of the options in broadcasting? Do you turn off SD or MPEG2? Do you allow the broadcasters to make the choice as to how they use their seven megahertz?

**Mr Jones**—I think you would have to go through a fairly technical exercise to see how the seven megahertz could be used to accommodate ensuring that equipment receiving existing broadcasts does not become obsolete at the same time as possibly being able to use MPEG4. It is not something I have applied my mind to, so I cannot give a more definitive answer. As to where you leave it up to, obviously we already have around 15 per cent of the community that have already adopted this new technology.

**CHAIR**—Some quotes have it is as low as nine per cent.

**Mr Jones**—Some submissions. My estimation and my knowledge of the industry would rate it at closer to 15 per cent.

**CHAIR**—Of TVs or households?

**Mr Jones**—Households.

**CHAIR**—That is the highest, I think. That is good.

**Mr Jones**—But I will preface that by saying that I do not necessarily believe that all of those are being used. A lot of receivers are now being sold as a bundle with a new television set. If the consumer has significant difficulty in getting that set-top to work, and as its perceived value is zero because they got it bundled with a television set, they may not try and return it. They may just put it in the cupboard and wait for someone smarter to come along to hook it up properly. So there is that issue. The usage rate would be somewhat lower, but I believe the penetration rate would be getting close to 15 per cent at the moment.

**CHAIR**—That is an interesting point. We will have to drill down into that survey that the ACMA commissioned. Hopefully they may have that information; we can go back and ask them. So you can see the issue, that if you hold to the seven megahertz there is some obsolescence within the next five years in set-top boxes there somewhere.

**Mr Jones**—Only if you look at the adoption of MPEG4 as the new standard.

**CHAIR**—Are you saying do not go with MPEG4? The whole reason for moving to digital is that the world is going to digital capture. For us to export our product and for us to stay a part of the international film market, we need to be up there with the Joneses. There is a huge pressure to go digital. If everyone else is going to MPEG4, wouldn't there be the same drivers for us as well, or do you not see the international market going that way?

**Mr Jones**—I think definitely the international market will go towards MPEG4, only because they adopted a standard definition platform under MPEG2. In Europe, it is only recently that they have begun to get excited about having high-definition broadcasts. As they develop those business models that will deliver high-definition broadcasts, they obviously will adopt the newer

higher compression standards to deliver that because of the efficiency associated with the delivery of the information. It is obviously always going to be preferable to deliver the information at the highest compression ratio you can because you can use the seven megahertz—or eight megahertz, in Europe—to deliver a lot more information.

**CHAIR**—Given that, what do you say to comments that we should drop the HD quota and just settle for SD broadcasting?

**Mr Jones**—I am a very high proponent of the quantity/quality argument and that you need both SD and HD to attract the consumer to digital television. There are going to be those consumers who think that having the extra channels, like we have on SBS and the ABC, are going to be very attractive reasons to go to digital. Conversely, there are going to be those people who think that—and particularly with the higher size screen technologies becoming much more prominent and penetrating further into the market—high definition is very compelling, and in particular because, if you put standard definition on some of these very big panels, the result is not as pleasing as having an HD picture.

**CHAIR**—Channel 7 captures in HD and broadcasts in SD. They gave us a demonstration where they then played it on HD equipment. They had, side by side, an HD broadcast and an SD broadcast and they were challenging us to pick the difference. So the difference is just in the broadcast signal, rather than in having one or the other right down the food chain, if you know what I mean.

**Mr Jones**—I know what you mean. I myself would have wanted to actually make that judgment. I would have considered the screen size that I was looking at.

**CHAIR**—It was about 70 centimetres—it was fairly large.

**Mr TICEHURST**—If you go back to your old computers you always had CGA with it, the very early one?

**Mr Jones**—EGA/VGA.

**Mr TICEHURST**—EGA, that's right. Then VGA and now what are we up to?

**Mr Jones**—SVGA.

**Mr TICEHURST**—So as the screens get higher in capability and as you get bigger you need more pixels in there to give you a clearer picture. That is essentially what you are saying, that with high definition if you have a big screen you need a lot more pixels on the screen; otherwise it is a bit like the old slide things—the further back you go the less definition you get.

**Mr Jones**—Yes. My experience in the industry is that if you are looking at a screen size of 76 centimetres or below it would probably be true to say that you will not see a huge difference between HD and SD, particularly in the recommended viewing distance from the screen. So, if you are looking at a 21-inch or 51-centimetre TV set, putting HD on that is probably not very useful—you are simply not going to see the difference because of the size of the actual screen.

But as you move more towards the 42-inch or 100-centimetre type panels there is a discernible visual difference between SD and HD, and that is part of what will drive the HD.

**CHAIR**—What is your opinion about the HD quota?

**Mr Jones**—My own opinion is that the HD quota would have to be maintained at least where it is at the moment, if not increased. I would prefer to see it increased because I believe that HD viewing is actually a very big driver for the take-up of digital television. I think part of what you are alluding to is that you are always caught with technology—at some point in time you introduce something but technology is always moving forward. So there is always going to be a need to ensure that you are not producing legacy issues as you move that technology forward. There may well be ways in which you could use MPEG4 with MPEG2 within a seven-megahertz bandwidth. As I say, I have not really considered that in any great detail, but there could well be ways in which that could be done. But, if we say, ‘We have a big problem, maybe we need to wait for MPEG4 before we go full steam with HD,’ after that what comes next?

As soon as you draw that line in the sand, you are likely within five or 10 years to have another emerging technology that will once again threaten the technology that you have waited to adopt. When all of this started—we started looking at digital television back in 1998—the view of our European friends was that no-one was going to be interested in HD broadcasting and that they were going to go for standard definition because they did not think it was going to be of interest to the public. Their view has changed 360 degrees now.

**CHAIR**—And that is in markets where they have 80 per cent penetration of digital.

**Mr TICEHURST**—Was that driven by the larger screens?

**Mr Jones**—I believe it has been driven by the larger screens.

**Mr TICEHURST**—Because their prices have dropped dramatically.

**Mr Jones**—If you go back to 1998, people were talking about digital televisions costing \$20,000 or \$30,000. In 1998 that was probably true for the type of screen sizes that we are looking at.

**Mr TICEHURST**—We had 32 per cent sales tax too on those items.

**Mr Jones**—Yes, this is true. But now you are looking at similar types of panels, a plasma panel or an LCD panel which are now—I saw a 42-inch panel down below \$2,000 in Dick Smith the other day. So even if you put a digital tuner into that, you are still not going to raise that price by more than say \$2,500 or \$3,000, which is becoming much more affordable. As I say, it is a difficult issue as to how you ensure you do not get legacy issues at the same time as ensuring that you can adopt newer technologies as you move forward.

**Mrs BRONWYN BISHOP**—I do not understand the difference between MPEG4 and MPEG2. Could you explain it to me?

**Mr Jones**—Very simply. If you look at a HD broadcast under MPEG2, you would be looking at around 13 million samples per second to be able to transmit and then replicate that broadcast within a receiver. MPEG4 would be something like four times less than that.

**Mrs BRONWYN BISHOP**—Less?

**Mr Jones**—So it has something like a factor of four improvement. It is difficult to generalise because it is very picture content dependent as well. Sometimes it could be much more than four, depending on what is in the picture.

**Mrs BRONWYN BISHOP**—How is that so?

**Mr Jones**—It is what we call the compression ratio. These technologies are basically very high-speed computers which are programmed to the algorithms that have been developed by the developers of MPEG2 and later MPEG4. Those algorithms basically take the picture and split it up into much smaller units. They also analyse how things are moving within that picture. The transmitter then uses a standard formula to be able to convert those things into a digital signal. The receiver at the other end has a much easier job. It already knows in advance the algorithms that have been used to do the compression, so it applies the reverse to those digital signals coming through to replicate the original thing that the camera has seen.

**Mrs BRONWYN BISHOP**—The algorithms are presumably somebody's intellectual property. Whose are they?

**Mr Jones**—The developers of the MPEG4 or the MPEG2 standards.

**Mrs BRONWYN BISHOP**—Who is that?

**CHAIR**—Is it Microsoft?

**Mr Tegart**—No, it is published by ISO. MPEG, the Moving Pictures Experts Group, is actually a subcommittee of the Joint Technical Committee 1, JTC1, between ISO/IEC/SC29/WG11.

**Mrs BRONWYN BISHOP**—Who are the Moving Pictures Experts Group?

**Mr Tegart**—They are representatives of the wide variety of interests involved in individual national bodies.

**Mrs BRONWYN BISHOP**—It sounds like a cartel to me.

**Mr Tegart**—It is a committee.

**CHAIR**—It is an international standards group.

**Mrs BRONWYN BISHOP**—No, Moving Pictures Experts Group own the algorithms.

**Mr Tegart**—It is a working group of the ISO/IEC committee.

**Mrs BRONWYN BISHOP**—What is ISO?

**Mr Tegart**—The International Standards Organisation.

**Mr HAYES**—They do not attract a royalty from it?

**Mr Tegart**—No.

**Mr Jones**—No, not directly.

**Mr HAYES**—Except for through a cartel, then.

**Mr Jones**—On the development of those standards, I would say that those standards are public and freely available.

**Mrs BRONWYN BISHOP**—So they have made the decision to make it a freely available standard?

**Mr Jones**—Yes. There are licence fees that are associated with manufacturers who include technologies such as MPEG of any type in their equipment, and there are organisations that have been set up to collect those licence fees.

**Mrs BRONWYN BISHOP**—So the licence fees are paid to the organisations and ultimately go back to MPEG?

**Mr Jones**—No, I think you will find that they ultimately go back to the individual companies that make it up.

**Mrs BRONWYN BISHOP**—So what companies belong to MPEG?

**Mr Jones**—In general, most of the large consumer electronics manufacturing companies would have some patents and some intellectual property associated with MPEG.

**Mrs BRONWYN BISHOP**—So—Sony?

**Mr Jones**—Sony, Panasonic, Philips and probably even Hitachi.

**Mr Tegart**—We could reference those for you, if you wish.

**Mrs BRONWYN BISHOP**—I would really like to know that because it seems to me that this is a group of people who are wanting to avoid the situation that we had umpteen years ago with VHS and Beta.

**CHAIR**—I think it is a bit more like English being the standard language for flight control. If you have planes flying internationally, the tower has to speak to the planes.

**Mrs BRONWYN BISHOP**—Yes, but you could use that argument with VHS or Beta too. VHS won the commercial war, but Beta was the better standard and that is the one that all the professional television stations used.

**CHAIR**—We do not make any of the big movie cameras for capture in Australia, so we really have to export them around the world. So it is a lot easier if the world if also broadcasting on—

**Mrs BRONWYN BISHOP**—I think they learnt that lesson. Is that what they are doing? They are working out the standard they want the world to have, with no competition—and that is not necessarily a bad thing.

**Mr Jones**—It is not without competition. An individual could always develop a proprietary standard and attempt to have that standard adopted.

**CHAIR**—I think there were two ways—MPEG4 and another way—that broadcasting could have gone. It did not have to go this way. Weren't there two, originally?

**Mr Jones**—Originally? No. There was ATSC, which is the American standard—which also uses MPEG as its video-streaming standard—and DVB. They were the two choices. The big difference between them, apart from all the service information considerations such as what type of information is actually being broadcast about the nature of the services, was actually the tuner. ATSC used a different technology to DVB to actually receive the signal and turn it back into the bit stream that then gets analysed.

**Mr TICEHURST**—Is DVB the equivalent of the PALD European standard?

**Mr Jones**—Yes.

**Mr TICEHURST**—What about the Americans? Are the Americans using something different to DVB?

**Mr Jones**—The full technical thing is that ATSC uses VSB modulation to demodulate, while DVD uses COFDM.

**Mr TICEHURST**—So an American digital TV will not work in Australia?

**Mr Jones**—No.

**Mr TICEHURST**—But a European one probably would if the tuner was set to the right bandwidth.

**Mr Jones**—If it was set to the right bandwidth, yes. In general in Europe the bandwidth is eight megahertz and in Australia it is mostly seven megahertz, so there is that difference. There would be other problems though. The way in which we have formulated our service information, for example, would be different, as would logical channel numbers, which are the way in which the receiver can respond to someone pushing channel 2 and actually receive channel 2. They would be different between the European TVs and our TVs.

**Mr TICEHURST**—I have had that issue with some of the Japanese and Korean sets sometimes. A Samsung TV, for instance, has a different channel allocation frequency-wise, which I guess is what you are saying.

**Mr Jones**—Yes.

**Mrs BRONWYN BISHOP**—But it still works.

**Mr TICEHURST**—It still works. It just means it is slightly fiddly. If you hit No. 9, for instance, you will not get Channel 9. You might find that Channel 9 might come through on program No. 8.

**CHAIR**—Do you think there is a role for Standards Australia in that so that the consumer is not just buying a set-top box, plugging it in and finding that it does not work? It might be the case now that channels 1 and 2 are blank, they get Channel 7 on channel 3 and they just live with it.

**Mrs BRONWYN BISHOP**—I do that.

**CHAIR**—Do you think there is a role for Standards Australia to say, ‘Look, this is so complex for consumers’? Should they say, ‘Here is a standard: plug in and play; stop cheesing the consumer off’?

**Mrs BRONWYN BISHOP**—Automatic tuning is vital, too.

**Mr Jones**—I think if the receiver standard is followed in its current form the receivers should be fairly easy to use.

**CHAIR**—This is the set-top boxes and digital TV.

**Mr Jones**—Yes. It is just called digital receiver standard. It covers whether it is an integrated tuner within a TV set or whether it is a set-top box. The problem I perceive, as Chair of CT2, is that there is an element of unfairness—I will be quite up-front about this—in that the broadcasters are required under the act to broadcast according to the transmission standard that we wrote but there is no mandate on the receiver standard. You will find that most of the major brands will comply with the standard because their corporate policies are such that—and I am talking about Panasonic, Sony, Sharp, and LG for that matter—they will normally determine that they will, as far as they can, follow a standard whether it is mandatory or not. But if you look at the nature of the market you will see that about 35 per cent of set-top boxes that are being sold at the moment—and in some months it is as high as 45 per cent—are from smaller importers who all have maybe a one to three per cent market share. In the GfK report, for example, you see them marked as ‘others’.

The competitive nature of the market has been demonstrated just in the last six months. I did a bit of a calculation the other day and found that the price dropped on set-top boxes from March to September this year on average by about 30 per cent. As that competitive pressure builds, it is more likely that the smaller suppliers in particular—who do not have the dollars to invest in making sure that the boxes are compliant with the receiver standard—are going to be sourcing

boxes that are going to be less rather than more compliant. The more established manufacturers will probably still try to be as compliant as they can. Ultimately, something like logical channel numbers, which is one of the ease-of-use features which exist within a digital set-top box, may be the first that gets missed out. Maybe it is the difference between spending \$50,000 on writing the software to do it and just taking the box as it is, where it will tune channels 1, 2, 3, 4, 5 and 6 and you have to sort out which ones they are in terms of the channel that you are watching.

**Mrs BRONWYN BISHOP**—But it is not hard.

**Mr TICEHURST**—It is just inconvenient, I guess.

**Mrs BRONWYN BISHOP**—It would be much easier if the channels would do like Channel 7 and Channel 10 do and have their own little broadcast symbol on their picture. Channel 7 is very good at that. You always know when you are on Channel 7 because it always broadcasts the Channel 7 symbol. Why do the others not do it? It is much easier.

**Mr Jones**—Most of them have watermarks. It is one of those ease-of-use features. The information I would rely on is the information that would come through from Panasonic and us talking to customers. People do prefer to be able to hit channels 2, 7, 9 and 10.

**Mrs BRONWYN BISHOP**—No SBS?

**Mr Jones**—And 30, of course.

**Mr TICEHURST**—I can get three variants of Channel 9. I can get the Sydney one as well as Newcastle, and NBN also do a Central Coast variant. They tend to use the watermark. But when you are trying to tune a set sometimes it is difficult to find out which channel you have.

**Mrs BRONWYN BISHOP**—On a set I have at home in Newport, just in a bedroom, I get two versions of Channel 2 on 5 and 6—5 is a better picture than 6—and I can get Channel 7 on 7, Channel 9 on 8, and Channel 10 on 10, but I get a better picture on 15, 16 and 18.

**Mr Jones**—Technically, it is because, where you are, you are picking up a lot more repeaters, particularly from the Central Coast.

**Mrs BRONWYN BISHOP**—It does not worry me.

**Mr Jones**—To finish my point about the standard, the receiver standard, as I have said, is not a mandatory standard. It is not a regulated standard. I personally hold the view that from the consumer protection point of view—to try and ensure that we are delivering to the consumer the best possible solution for digital television and a consistent solution across all suppliers—there is a disparity in that the transmissions are mandated and the receiver is not and that, by mandating the receiver, you certainly would be encouraging more ease of use for the consumer.

**Mrs BRONWYN BISHOP**—But it would cost more. You can buy an SD box for about \$90, but if you want to buy a brand name—Panasonic or whatever—your starting price is \$299.



**Mr Jones**—Interestingly enough, this discussion has actually taken place in the supply industry. I have been chairing a supply industry group through DVB that has been looking at over-the-air downloads and at where the standard fits. Even companies like Legend, which are sometimes selling boxes down around that \$90 mark on special but up around \$129 normally, are supportive of mandating the standard, because a lot of this development work is a one-off. Once you have done it for one platform, that is transportable to other platforms, and it will discourage bringing boxes into the country that are simply not suitable for our broadcast environment. Two years ago, there was one chain of stores that brought in a box that simply did not receive UHF. They were VHF-only boxes.

**Mrs BRONWYN BISHOP**—That is a bit of a problem, isn't it? So then they are not obliged to advertise that?

**Mr Jones**—Under the Trade Practices Act, as long as they made it quite clear on the specification—

**Mrs BRONWYN BISHOP**—Written on the box?

**Mr Jones**—that it was not a UHF box, they—

**Mrs BRONWYN BISHOP**—But people would not necessarily understand what that means.

**Mr Jones**—A friend of mine certainly did not when he bought the box specifically to improve SBS reception so he could watch the soccer.

**Mr TICEHURST**—You have a good point. That is a good consumer protection point.

**Mr HAYES**—Can we go back to Bronwyn's question about the standards committee and MPEG, and who is involved over there.

**Mrs BRONWYN BISHOP**—Thank you for that in anticipation—a whole lot of things do not make sense. And if you can give me the list of that, that would be really helpful.

**CHAIR**—And they are going to come back to her with that.

**Mr Tegart**—With the patent declarations in the MPEG?

**CHAIR**—And the companies.

**Mrs BRONWYN BISHOP**—I think I drew the wrong analogy. I think the better analogy was when protocols were being developed for having proprietary systems or open systems, and open systems have won.

**Mr Tegart**—Yes.

**Mrs BRONWYN BISHOP**—And that is what these people are trying to guarantee.

**Mr Tegart**—That is right. Most of the IT committees internationally are about interoperability. One thing I was going to say about the composition of the MPEG committee is that, like all international standards committees, the individuals there are representatives of their national bodies. While they are wearing a company hat, they are endorsed by their national bodies. In our case it is Standards Australia. In many other cases it is a government agency.

**Mrs BRONWYN BISHOP**—But is still quite an interesting development to achieve an outcome which has a degree of universality.

**Mr Tegart**—It is, and there are hundreds of very smart people working on it.

**Mr HAYES**—But how does that translate in terms of Standards Australia and your particular committee that looks at overseas broadcasting standards? Who else is involved from the industry on those committees?

**Mr Jones**—On the actual committee?

**Mr HAYES**—Yes.

**Mr Tegart**—Go through the list.

**Mr Jones**—Probably Alistair would be better to answer that one.

**Mr Tegart**—The constitution of Standards Australia committees is through nationally recognised organisations. Standards Australia makes a judgment as to whether an organisation is nationally representative, so we do not have individuals representing companies on main committees. They may well be representing themselves or individual companies on subcommittees or working groups. They can contribute to the development of standards in that capacity at the working group or subcommittee level, but the Australian standards are published with the endorsement of national nominating organisations.

On the CT2 committee, which Keith chairs, there is the Australian Broadcasting Authority, Australian Broadcasting Corporation, Australian Caption Centre, Australian Chamber of Commerce and Industry, Australian Communications Authority, Australian Electrical and Electronic Manufacturers Association, Australian Greenhouse Office, Australian Information Industry Association, Australian Subscription Television and Radio Association, Broadcast Australia, Community Broadcasting Association of Australia, Consumer Electronics Suppliers Association of Australia, Consumers Telecommunications Network Inc. Australia, Department of Communications, IT and the Arts, Department of Industry, Science and Resources, Electronic Services Industry Association Australia, Free Television Australia, Optus, SBS and Telstra. That is the list current at the time of publication of the receivers standard.

**Mr HAYES**—So it is not the manufacturers.

**Mr Jones**—Yes, AEEMA—the Australian Electrical and Electronic Manufacturers Association—has representatives, and the suppliers would have representatives also through CESAA.

**Mr HAYES**—Standards Australia produce the standard and, apart from the issue about who owns it, as I understand it, you would sell the standard to any group.

**Mr Tegart**—Yes, they just download—

**Mr HAYES**—It is not a royalty; it is simply a selling of the standard to anyone who inquires regarding it.

**Mr Tegart**—Yes, go to the web site and download it, in effect.

**Mr HAYES**—Going back to the MPEG4: I was interested in your comment that what you see as driving the development of MPEG4 in Europe at the moment is the pick-up of high-definition television. Is that likely to be the driver here?

**Mr Jones**—For high-definition television?

**Mr HAYES**—No, is high-definition the sort of thing that we should be conscious of if we start looking seriously at the development of MPEG4, for instance, as being an emerging standard? Because at this stage it does not seem to me that high-definition television is the key driver out there for digital.

**Mr Jones**—My own personal opinion is that it is actually a compelling driver for the take-up of television. That comes back to the argument I was providing earlier: as you move into larger screen sizes, you need the high definition to effectively be able to get the pleasant viewing that you want out of those larger screen sizes, and that is certainly where the market is going.

**Mr HAYES**—But if you accept that the market is not quite there at this stage, I think the vast bulk of people making the decision about whether or not to go from an analog set to a digital set look at quality of vision and sound. At this stage it is really not large-screen optics that are driving the debate, is it?

**Mr Tegart**—I think that demand drivers are probably something that we would have difficulty getting consensus on within the committee because of the variety of interests included in the committee. They might well agree on something down the track, but in some cases it takes years to get the committee to agree on the content of the standards.

**Mr Jones**—The problem in all of this is that there is the quantity-quality argument. There is your segment of consumers that are going to be turned onto digital because they get something different from it, like the extra ABC and SBS channels—and we are all aware of the Channel 7 submission, so there is no need to go there. But conversely there are going to be those consumers who are turned on by simply the better picture quality, particularly on larger display devices. I will give a very good example of that: the cricket that we have all been—

**CHAIR**—Crying in our beer about.

**Mr Jones**—watching over the last seven days was available on two platforms. It was available on Foxtel, through Fox Sports, on a very poor SD service, in my opinion, or through SBS on what was effectively a standard definition picture that was being broadcast on SBS's

576p high-definition broadcast. The difference in the picture quality between those two was astounding, if anyone has actually done the comparison. I have both, and I watched the free-to-air SBS service because I felt that it was a much better picture and easier to watch than the Foxtel. I watch on a 36-inch CRT TV set. As you move to 42-inch plasma or LCD panels and higher, the difference becomes even more remarkable.

**Mr TICEHURST**—Is there a difference in the transmission quality on Foxtel compared to the standard definition of SBS?

**Mr Jones**—Yes.

**Mr TICEHURST**—So is there a different standard on pay-TV?

**CHAIR**—You have not gone digital on your Foxtel, have you?

**Mr Jones**—Yes. I am actually on Austar. It is a satellite and has been digital all the time, even though they created a new digital service, it was—

**Mr TICEHURST**—So it is a different standard that they are broadcasting too?

**Mr Jones**—It all depends what feed and bit rate they are using. With the number of channels that Foxtel or Austar are trying to beam down all the time, quite often they will go to another bit rate. In particular, it depends what feed from the UK they are taking it from. If Foxtel was taking it from a Sky feed and somehow SBS was taking it directly from the Channel 4 feed, there could well be a difference in those two. I am not a broadcast expert, so I do not know all the ins and outs of the parameters.

**Mr TICEHURST**—Maybe you could talk about the large screens. I bought one of those DLPs. I think it is 122 centimetres; it is a monstrous thing. It runs on a standard definition box and gives quite a good picture but it would be interesting to see the comparison to high definition. I must say your point about standardising receivers is an excellent one. I know that with some of the TVs I have had, particularly the European ones—one time I had an ITT Digivision and a Telefunken—to set them up so that you have the same program number in line with the channel number gets a little bit awkward. In fact, I ended up making a list. I have three TVs' worth on the one set-top box—

**CHAIR**—Taped on the back of your remote.

**Mr TICEHURST**—Because I live on the Central Coast I have access to plenty of channels, so after I finished drawing the list up it was a matter of setting up a table. Eventually I got to the stage of looking at the ABA to get the frequencies of the various channels because to tune some of these things correctly you really need to tune to a channel and use a finetuner to get it right. Obviously, a lot of consumers are not going to be able to do that. I think there is a very good case for making sure that the set-top boxes respond to a standard. I think that would make it a lot easier for consumers. If you extend that and look at the media centre, you also now have digital tuners in PCs. From what I understand, this Microsoft media centre does not handle high definition. I think it only does standard definition.

**Mr Jones**—I will have to pass on that one. I have not looked into that in any detail. I would say that is probably correct because with the way PC receivers are being developed at the moment is being driven more by SD than HD technology. That is not to say that that will not change either. On a PC, again it is the same argument, you are looking at a much smaller screen in general at the moment, but as we move more towards the automated home it is likely that there are going to be product offerings which are a PC with some sort of receiver, which could well be HD, which would stream videos onto hard disks for storage and then wirelessly transmit that throughout the house to different display panels. Some of those could be quite large and therefore avail themselves of the HD technology.

**Mr TICEHURST**—I have seen set-top boxes on the internet when I have been doing a bit of research where it has networking built in. For me, that was another reason for not wanting to mandate digital tuners. You then have the stage where you can use this media centre concept of broadcasting on a bigger screen from a hard disk stored on a computer and it all becomes integrated so that your display panel is really like a large version of what we use as a monitor for computers.

**CHAIR**—Moving on to the digital receiver standard, would mandating a digital port on any future imports of TVs so that they would be digital ready stop the latency in its tracks?

**Mr Jones**—There is a European standard. It is more of an industry standard rather than a public standard. It was developed by the Consumer Electronics Suppliers Association in Europe.

**Mr TICEHURST**—Is that the DVI?

**Mr Jones**—No. It is more HDMI, but DVI is also part of it. It is a marketing code standard which says that you can use the terms ‘HD ready’, which has been a difficulty here in Australia with our current marketing code and also because the ACCC told the industry they did not want the words ‘HD ready’, ‘HD capable’ and that sort of thing used. The new standard that has emerged from the suppliers in Europe over the last few months says that you can use the words ‘HD ready’ but that that must include something like what you are talking about—a HDMI or DVI interface, which are the digital interfaces into the TV set.

**CHAIR**—Chris has to go. Perhaps you and I, Ken, will form a subcommittee.

**Mr TICEHURST**—I so move.

**CHAIR**—Thank you. What would be a standard in Australia that we could have? There are 1.3 million TVs sold every year in the Australian market and when the analog signal goes some of them, I suppose, you may be able to buy a set-top box for, but for some of them that will be it—especially the cheapies.

**Mr Jones**—I believe you would still be able to buy a set-top box. It may be that you would have to modulate the output of the set-top box to go in via the antenna because the set might not have an AV, audio-video, port. HDMI is more important for a high-definition signal because it means that you can maintain, if you like, the maximum possible bandwidth from the time the camera takes the image to the time that image is displayed on the display device. Component video, which is where it is converted to an analog signal, albeit a very high bandwidth one, is

also suitable for high definition into TV sets. But most of the TV sets in the population of TV sets in Australia at the moment would not have component video. So you would have to be looking at either S-video or a normal composite signal into the TV set. By mentioning the European standard on HD ready I was merely saying that to be truly HD ready you need to have at the bare minimum a DVI interface, which is more of a computer interface than it is a moving image interface, or a HDMI interface, which is the one that has been developed to ensure that you are getting a full transfer.

**CHAIR**—What are the prices of those types of interfaces in the Australian market at the moment?

**Mr Jones**—The addition of an HDMI interface into a set-top box may add \$100 to what is now around a \$400 or \$490 device; in today's terms that might become a \$590 device. But price pressures will always bring those prices down over a period of time anyway.

**CHAIR**—Do you think that is something the committee should look at in terms of recommending the mandating of at least a HDMI interface?

**Mr Jones**—In terms of the description of what a TV set is capable of, yes, I believe it should be considered. But that can be considered within the standard. If the committee were persuaded to look at mandating the receiver standard then the government, through its representation on Standards Australia, could require the minimum requirements of the standard—the part Standards Australia would be saying should be mandated—to include a HDMI interface for high-definition receivers.

**Mr TICEHURST**—It would be much better for us to have the standard rather than mandating it. To me, mandating is not the way we ought to be going about anything.

**CHAIR**—We have to get to our testing and conformance centre, which we have not done, and also the greenhouse issues with set-top boxes, which we have not covered either. Could we race through those?

**Mr Jones**—Another area is the greenhouse issues. In fact, I have a meeting with the Australian Greenhouse Office at one o'clock. The Greenhouse Office is mandating on all set-top boxes and TV receivers minimum energy performance standards. Those standards are being written into a different group of standards within Standards Australia. They are being written into the electrical safety standards governed by a committee called TE-001. Those standards will be calling out the requirements for MEPS, but there will be regulation that will pass more at state level, because it has to go through the different safety authorities of the states, and then it will be federal. But there is a move towards regulation in that area. It is a big issue. To give you some idea of the size, I recently visited San Francisco for a meeting. I do not have the figures here, but if you make certain assumptions about how set-top boxes are used and if all TVs in 7.2 million households were converted over to digital TV something in the region of 1,000 gigawatt hours of electricity would be required annually to power those set-top boxes. I will give you the figures that I have. I did not bring them with me.

**Mr TICEHURST**—Then you have the standby issue with the TV itself.

**Mr Jones**—Yes, you do.

**Mr TICEHURST**—That would be higher on power even than the box would.

**Mr Jones**—No. Most TVs sold in the Australian market at the moment already comply with the standby power of less than one watt. Most digital set-top boxes that are being sold in the Australian market are at the moment averaging around five watts standby power.

**CHAIR**—That is a reason for mandating the digital receiver end of the TV, which then goes to standby.

**Mr Jones**—Very much so. If you do the same calculation, assuming that everything is sold as an integrated digital TV set, that figure drops by a factor of 10.

**Mr TICEHURST**—That is an issue, is it not?

**CHAIR**—I know. As to the testing and conformance centre: who, how, why and who pays?

**Mr Jones**—The industry in general does, and that is also represented on the committee. I will make these comments away from CT2, as such, but I am sure that CT2 would support the position. There is a belief within the industry, both by broadcasters and suppliers, that there is a requirement to do testing and conformance. There is a difference in how that might be delivered. One of the key issues of testing and conformance is that, if you go and regulate the receiver standard, by its very nature you then require someone to say, ‘These receivers, before they go on the shelf, are compliant with the Australian standard.’

**CHAIR**—Or you nail them when a consumer brings it back and says, ‘It doesn’t work.’

**Mr Jones**—That as well, but I think you need a firmer regulatory regime.

**Mr Tegart**—At the moment, the standard says that conformance testing related to this standard is the responsibility of the manufacturer.

**Mr Jones**—Yes, which I believe would have to change. But, if you have regulated the standard, you would have a sufficient amount of testing for an independent testing authority to do that testing and be commercially viable. Almost certainly, with some seed funding from the government, it should be able to continue as an ongoing viable business. Taking my CT2 hat off and putting my industry hat on, the supplier industry is very firm that that testing and conformance centre would have to be independent. The broadcasters have a different view of that. I have not sufficiently read their submissions to know whether they have brought it up, but they have a different idea which we, as a supply industry, do not believe is as independent as it needs to be.

**CHAIR**—If the government gave some seed funding to set up a testing and conformance centre we could lob it into Standards Australia and then it would be funded on a user-pays full cost recovery basis.

**Mr Jones**—If Standards Australia were interested.

**CHAIR**—Where would you lob it?

**Mr Tegart**—I do not think that organisationally Standards Australia would be interested in that. We have divested ourselves of a number of our commercial interests in the last two years—SI Global—because of a perceived conflict of interest in testing.

**CHAIR**—You are setting the standards. Shouldn't you also be the policeman?

**Mr Tegart**—No.

**Mr TICEHURST**—No, that is the issue they have with Telstra.

**Mr Tegart**—There are very complex arguments about it.

**CHAIR**—Where would you put it, to be independent?

**Mr Jones**—In the private sector.

**Mr TICEHURST**—You have private testing labs now. As long as they are NATA certified, then you have a private laboratory that is certified to do the testing to a standard. That already exists.

**Mr Jones**—That is one alternative. It may well be that the industry as a whole, that is, broadcasters, suppliers and others, get together and form some sort of company to do this testing, with representatives from all the stakeholders.

**CHAIR**—How does government initiate that to get it to happen?

**Mr Jones**—That is a very difficult question. There would be a committed move by industry if industry knew that the seed funding was forthcoming. There is uncertainty at the moment as to whether that seed capital to set up the testing and conformance centre—

**CHAIR**—Panasonic gave us an amount for seed funding. It was only a million or two.

**Mr Jones**—Yes, something in that region.

**CHAIR**—Do you agree with that amount? We need another industry view. Is there another amount out there?

**Mr Jones**—That amount was calculated recently on, effectively, a no bells and whistles type of service—not a gold plated type of service but something that practically tested the product and then ensured that it was going on the shelves compliant with the requirements. Over-the-air downloads are a very important part of that. The only practical and cost-effective way of ensuring that receivers are maintained in the marketplace to a level that is going to satisfy consumers is by being able to update the software. The software may have to be updated because of problems that a company may find with their set-top boxes. Four or five times a week I am prompted by Microsoft about an update for some software somewhere. But it is not just that. There are also considerations about broadcast. There have been many examples already where



problems exist because of the way in which the broadcasters are actually broadcasting something. It may well be that on some occasions it is more cost effective for an over-the-air download to be performed so that a box can cope with what is happening with the broadcast than for the broadcasters to change their broadcast to be compliant.

I do not believe that any receiver manufacturer would object to delivering such an over-the-air download if it can be shown to them that the cost associated with that is far less than it might be from the broadcaster, particularly for a short time fix. In other words, there may be a problem with the encoder in the broadcaster, which is a software problem, which is causing something to happen. It may be that that supplier cannot provide an updated version of that software for some considerable time but we can change the set-top boxes quite quickly. That is a scenario which is quite realistic and, in my experience, it is the more common requirement to update set-top boxes at the moment than to fix bugs that may exist in the set-top box that have come from the supplier of the set-top box.

To do over-the-air downloads there are commercial, legal and technical considerations. There are issues of indemnity, which the broadcasters hold very firm. To ensure and, in particular, encourage broadcasters to offer over-the-air download services, we need testing and conformance of those over-the-air downloads from an independent body which can be provided to the broadcaster, along with the software that needs to be updated, and they can have the security that it has been tested, will not cause third party boxes to go black, will not cause even the boxes they are intended to go black and will achieve the over-the-air download without any damage to their business. That is another important aspect of the testing and conformance.

**Mr TICEHURST**—With stand-by power, what are the standards now for the likes of the VCRs and PVRs as well as home theatres?

**Mr Jones**—PVRs or PDRs will be covered by the new set-top box standard that is currently going to Standards Australia for editorial before it gets released for public comment. I believe that it is in the Australian Greenhouse Office's timeline that they will start bringing in, although maybe not so much for VCRs because they are basically on the way out but certainly for DVD recorders and DVD players, standards for those devices at some point in time in the next few years.

**Mr TICEHURST**—What power consumption would they have on stand-by?

**Mr Jones**—I believe that it would probably be very similar to that of a set-top box, so you would be looking at less than one watt in stand-by mode and probably around 10 or 15 watts in playing mode.

**CHAIR**—Thank you very much for coming. I think we have covered everything. If we need more information, we will write to you with a few extra questions, with the answers to be sent back to us. We have covered a fair bit today.

**Mr Tegart**—If you have questions, please write to me.

**CHAIR**—Yes, we will. We still do not have a structure for the testing and conformance centre. We will work on that one. You just cannot give \$2 million of government money to a private company.

**Mr Tegart**—Standards Australia would not be the place for it, but we would certainly be happy to produce standards through our process to support whatever was needed in terms of benchmarks.

**Mr TICEHURST**—We need an entrepreneur who is going to put the money up.

**CHAIR**—It is a hard one. You could put it out to tender, could you not?

**Mr Tegart**—That is possible. You could just put it to tender through the normal departmental process.

**Mr Jones**—There is another way, which has been explored, and that was through something like one of the universities. The one that I know that there have been discussions with is the University of Wollongong. From a research basis as well as from a service provision basis, they were interested in taking on that particular function. I think the supply industry would consider them to be an independent body.

**CHAIR**—So the seed funding could go to Wollongong to set that up.

**Mr Jones**—That would be one way.

**CHAIR**—That would be a bit easier.

**Mr Jones**—Maybe even the University of Western Sydney.

**CHAIR**—Absolutely. Thank you very much for attending.

[10.28 am]

**RICHARDS, Ms Debra Shayne, Executive Director, Australian Subscription Television and Radio Association**

**CHAIR**—I welcome the representative of the Australian Subscription Television and Radio Association. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament. Consequently, they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. Would you like to make a brief statement?

**Ms Richards**—Yes. I am here at short notice, so I offer apologies if I am not as prepared as I should be in that I might not be able to provide all the specific information that you ask of me. I would be very happy to take requests for information on notice. I know that my colleagues at Foxtel, Austar and Optus are actually preparing something, based on discussions they had with you yesterday, to deliver to the committee. This is centred on issues facing the inquiry in terms of encouraging digital take-up. The subscription television sector has undertaken that task over the last 18 months, as Foxtel launched its digital service and Austar relaunched its digital services. We have had, some would say, outstanding success in converting 70 per cent of our subscriber base over to digital, and people pay for that privilege. We are at pains to see why the free-to-air cannot do the same, especially when they are in 98 per cent of Australian homes, they have a bevy of Australian talent and they are extremely profitable businesses. Having said that, I should say at the outset that the best way to ensure that digital take-up is to ensure a competitive digital marketplace and let competition work. It needs to be new services—innovative services are the key—and those new services should deliver real consumer benefits and improve service quality and service delivery.

We are told Australians value their free-to-air television service, so we consider that you should give them the option of another free-to-air service. I do not think there is any justification for blocking new licences. The market should decide. As a new player in that space and more competition, it will have to be creative and innovative to be competitive against the incumbents, and that galvanises the incumbents to be competitive in response. So it lifts everyone's game.

Can I say, in any changes that do occur, please do not make it more comfortable for them and more harsh for us, because that is not going to ensure a competitive digital marketplace. Their response was that they did an ad with the first face of television, Bruce Gyngell, who started television in 1956, as we all know, and then they did a couple of ads featuring a lifestyle host, a morning show host and a travel show host. As much as we all adore Bert Newton, seeing him in wide-screen is not a compelling product for most of us. They need to be selling the fact that you can get digital quality sport, movies, HD TV and interactive services, which they have already pulled away from, which is disappointing.

Their response seems to be to sit back comfortably on the spectrum, do the minimal requirements and let everyone else, including government, work out the incentives to convert viewers to digital. We have done it, and I understand that is what you want to talk about. Our

success has been due to encouraging take-up: (1) to having a plan; (2) to investing in that plan and committing to it, so if you are going to commit to digital, you commit to digital all the way; and (3) to making the product compelling and market it well. And you really need to cooperate. Some people just think our industry is one operator. We are not. We are three operators, or four operators, including Telstra, and we have separate channels and businesses that need to cooperate. We all cooperate on delivering digital and we do it all together. That is how we have been able to develop the market campaign, the EPG for easy navigation and all those sorts of things.

You also need a switch-off date—I have said this before—whether it is 2008 or a little bit further out. When Foxtel first launched, the message was that we were committed to digital, and there were no more analog services sold from March 2004. They have already announced that analog will be turned off in June 2006. I note LG said in their submission that they feel that you should not be selling any more analog TV sets. Then you market your service. You get a talent: in this case it was Hugh Jackman, who is very compelling, can I say, as opposed to Bert, but no comments there. I highly recommend a very big launch party to let everyone know what is happening. You market across all media, because not only were we converting our existing subscribers from analog to digital but we also had to get new subscribers.

So you market on free-to-air television, you market on billboards and moving transport, and you do as much as you can in newspapers and, of course, on your own services. You promote on your own services. You do education campaigns, as we did, to tell people how to install, what to install and what they are going to get. We did that in conjunction with retail outlets such as Harvey Norman and, I think, Myer—certainly, with the PDR launch, it was Myer. You show consumers what they are going to get. So you show the active services; you show that there is going to be digital quality, sound and pictures for sport, news and movies; you show the active services, how easy it is to navigate with your EPG; you commit to and show new and exclusive content, whether it is made locally or it is made overseas; and you push the fact that you are putting the viewer in control. That is what you can do with digital like you have never been able to do before. You use competitions and incentives, more than just the ABC's giveaway of one set-top box weekly. You do more than that and give those incentives.

At subscription TV our job has been much harder than the other broadcasters, because we actually have to convince people to pay for the service. We have to convince them to take the new service, we have to convince them to pay for the install and then we have to convince them to wait at home between 7.30 am and noon or 12.30 and 5.30 pm for the installer to come along. As I said, we have had 70 per cent conversion with no public money or government assistance and we are only in one-quarter of Australian homes. They are in 100 per cent of homes. Optus is now moving to digital as well. We have the introduction of new innovative services such as PDR—the Foxtel iQ—and Austar is to launch their PDR, which will include a free-to-air tuner, in the first half of next year. We think it is so much easier for them, being in about 100 per cent of homes.

They need to be accountable not only to their advertisers, which they are at the moment, but to consumers. They have a bevy of talent across all their networks to send a message to consumers. And what are they offering? HD at the moment is less than 12 per cent of their total programming, as per the requirement. That was the reason they were given the spectrum. They

should be pushing what they wanted the spectrum for and enhancing their services—do the most of what they can currently do. They have the ability currently to enhance their services.

On that, can I just do a right of reply to my colleague from Standards Australia about the cricket. I also watched the cricket over the entire period of the series and the one-dayers. I had two options, because SBS is retransmitted on My Foxtel service and I had Fox Sports, which is on Foxtel and Austar. He is right: they did come from two different sources from the UK. I watched Fox Sports because of what I could do with it—I could go into highlights, I could go into multiview. I could do that enhancement that the free-to-air currently do at the moment.

Australia were not the winners of that series, but both SBS and Fox Sports were in the share of viewers. I am really confirming what he is saying: people are going to go to services because of the better picture. They are also going to go to services because of what they can do with that enhanced service and active services et cetera. We think they should be doing more, and that is going to be one of the drivers.

**CHAIR**—So your basic submission is that Seven, Nine and Ten basically own the audience and it is their market share out there that they should be protecting and moving to digital—that it is incumbent upon the broadcasters, if government wants to switch off and get their spectrum back, as agreed a decade ago?

**Ms Richards**—Yes.

**CHAIR**—To do the marketing to move their customers with them?

**Ms Richards**—Across.

**CHAIR**—Otherwise they just lose customer share and that affects their revenues. So, ‘Hey, wake up and do the marketing’?

**Ms Richards**—Yes, do the job. You can do it. We have shown you can do it. We are not profitable like they are, but we have committed to it. Everyone is moving to digital. It is not about looking backwards. That is why we have had to make decisions about turn-offs and things like that.

**CHAIR**—If we set the date and say, ‘That’s the switch-off date,’ Seven, Nine and Ten will go, ‘Whoa, we cannot turn off 98 per cent of our customers overnight; we must do something and commit and move people on to digital,’ and it will happen?

**Ms Richards**—Yes, that is right.

**CHAIR**—That is interesting.

**Ms Richards**—And get off the spectrum that is currently being used.

**CHAIR**—In 18 months you went from zero to 70 per cent? Basically, the free-to-air simply have to encourage people to walk down the street and spend \$80. You do not have to wait at home, you do not have to wait for the connection—

**Ms Richards**—Whether you are going to have a set-top box or whether you are going to have a bigger screen. As Standards Australia were saying, the move in the market is to bigger screens.

**CHAIR**—So the free-to-air have a much simpler task of moving their customers onto the new platform than you did, and in 18 months you have gone to 70 per cent and in a decade these guys have gone to 10 per cent?

**Ms Richards**—Yes, just over 10 per cent. We have to do all those things to pay for the service. They have to get people down to their local retail outlet to make the decision and get the box.

**CHAIR**—That is an interesting way of looking at it.

**Mr TICEHURST**—What was your main driver in moving away from analog to digital?

**Ms Richards**—It is what is coming—it is where we will all be. Satellite was already mandated to be digital, so we had a lot of customers that were what we would call traditional satellite and then we had to relaunch and say, ‘This is what you got on your satellite digital service. This is what you are going to get—so much more.’ You have to buy all that capacity to be able to deliver more services on satellite. For cable you have to upgrade your equipment. It is an ongoing process. That equipment has a use-by date, so you have to enhance that and get the best equipment possible. We know new technologies are constantly coming down the track. We are talking about MPEG4 and what that is going to be able to deliver.

**Mr TICEHURST**—So who mandated the digital on satellite? Where did that come from?

**Ms Richards**—That was a government decision. In the BSA in 1992, the decision was made that all satellite services must be digital. I think that was to encourage the sale of the government’s satellite service at the time.

**Mr TICEHURST**—And there was a cut-off date then on analog, was there?

**Ms Richards**—No. These were brand new services into the market. Subscription television services were brand new services into the market, so the government said: ‘Any satellite services that are going to be subscription must be digital.’ There was no mandating on cable or anything like that, but there has been a commercial decision by the operators to convert to digital, as Optus has just announced, so all of our cable services will go to digital.

**Mr TICEHURST**—How many of your digital boxes that you have onerously put in have the hard disk, the PDR, in them?

**Ms Richards**—No, the PDR has been a launch on top of digital. That has been a second launch.

**Mr TICEHURST**—That is a new launch now, is it?

**Ms Richards**—Yes, I think it was launched earlier this year. I got my install last Saturday. So that is a launch on top of those services. Some customers have the straight digital service—the

new Foxtel digital or Austar digital—but the PDR is the new set-top box on top of that, which is the new install. That really is where you program yourself.

**Mr TICEHURST**—That demo we saw the other night was a really good driver. I could just see my wife being able to pick up the electronic program guide and select what she wanted to record. Also, you say that some of the new boxes now are going to have free-to-air tuners in them. Will they be a standard definition or high-definition tuner, or will they be just analog?

**Ms Richards**—No, they will be digital, so presumably standard definition. But I am happy to come back on the detail of that, because that is Austar. I can provide the specifics of that.

**Mr TICEHURST**—If we are going to push the free-to-air, we need to make sure that you are providing that.

**Ms Richards**—I think the commercial broadcasters in regional areas are very keen on Austar's plans, because Austar will enable their services to be picked up through the one remote control rather than having the issue of retransmission. Austar is a national service, but you have a whole lot of regional broadcasters that do not provide a national service. So, in the areas where Austar is, if you have that free-to-air tuner, that will pick up that particular commercial licensee.

**Mr TICEHURST**—If the free-to-air have a multichannelling capability, they are concerned about splitting their advertising revenue or whatever. But, if you are looking at the driver for digital, some of your driver has been the interactivity and it has also been the range of program offerings. If we are going to force the free-to-air to produce essentially the same sort of thing—

**Ms Richards**—I am not saying 'the same sort of thing', but I am saying that they could do a lot more with the current ability that they have. They are allowed to do enhanced programming. The national broadcasters are allowed to do some limited multichannelling, and they can do limited multichannelling on things when they overrun into news programs et cetera. I am certainly not advocating multichannelling for them, because you know our position on that. We certainly do not want them to be allowed it before the current date, which we understand is 31 December 2008. That, in a sense, is implementing something that is going to make it harder for us to compete in that period. We are not saying no to it, but we are saying: 'Please be realistic about the time frame.'

**Mr TICEHURST**—But if we got rid of, say, the antisiphoning requirement and just had—

**Ms Richards**—Certainly, if you got rid of antisiphoning altogether, there would be open competition.

**Mr TICEHURST**—a level playing field right through, forget the mandating—

**Ms Richards**—We would love to see the level playing field come back to the level rather than up here on the perpendicular.

**Mr TICEHURST**—So what would you see as the driver for the government, say, to fix a cut-off date for analog?

**Ms Richards**—It is 2008 and up to 2012 already in regional areas. I would say 2010, but the UK are already talking about 2012. That is the sort of date I have been hearing, but I just think you need—

**CHAIR**—But if you were looking at losing 90 per cent of your market—only 10 per cent have converted and 90 per cent of your customers are going to go in four years time—you would get cranked, wouldn't you? You would move your booty and move them all over, wouldn't you?

**Ms Richards**—Yes, it is a huge driver. It is a huge incentive to encourage people to move across.

**CHAIR**—That is very interesting.

**Mr TICEHURST**—So what in your view would be the driver for the government to force that mandating?

**CHAIR**—We would get our spectrum back, I suppose.

**Ms Richards**—You mean the government's incentive?

**Mr TICEHURST**—Yes.

**Ms Richards**—Yes, you would get the spectrum back. That is public spectrum, and—

**CHAIR**—What would we do with it? Why do you want it back? What is the rush to get it back?

**Ms Richards**—I think it would be in the government's interest to get it back, and then you deliver new services and then it is open to government to decide what those services can be allocated for. Isn't that what we are about—delivering new services to consumers? The government gets benefits in terms of what is paid for that. We have seen that in commercial radio. Commercial radio did not want new entrants, yet there have been new entrants who have paid a lot of money for that spectrum and are delivering services and making it more competitive for the commercial radio market, and no-one has fallen over. You can see it working in that area.

**Mr TICEHURST**—They want to get video services delivered, say, via the internet or mobile phone or wireless technology.

**Ms Richards**—That spectrum could be used to deliver things we have been trialling at the moment, like DVBH, which people have been involved in. That spectrum could be used for so much more than it is currently being used for.

**Mr TICEHURST**—If we had other video services, would that impact on your pay-TV business?

**Ms Richards**—Other services are naturally going to impact in terms of competition, but we have always been for open competition. As I said in the beginning, if you are going to have a



level playing field and a competitive digital marketplace, that is going to benefit all of us, particularly the consumer.

**Mr TICEHURST**—Open it right up—a level playing field.

**Ms Richards**—Yes.

**CHAIR**—How much did your campaign cost over the 18 months to convert 70 per cent?

**Ms Richards**—I would have to get back to you on the detail of that. I do know that we have paid \$1 billion in rolling out new digital services as a sector; that is, channels of the platforms, buying the capacity, installs—the whole thing.

**CHAIR**—But as a marketing campaign—

**Ms Richards**—I am happy to get back to you with that particular figure.

**CHAIR**—Could you get back to us on that—what a marketing campaign would cost?

**Ms Richards**—Yes. That may be a commercial-in-confidence figure, but I could certainly give you an estimate about that. I could maybe give you the commercial-in-confidence figure and then give an estimate or a percentage.

**CHAIR**—It is a public hearing, so you should probably give us the public figure.

**Ms Richards**—Certainly I will give what you are asking for.

**CHAIR**—Yes, just give us an idea. Obviously the government should fund a marketing campaign, but it sounds as though the free-to-airers have a vested interest.

**Ms Richards**—I think that broadcasters who have been given that spectrum should be doing it.

**CHAIR**—If it is not too onerous an ask.

**Ms Richards**—We have done it with much less and no profit, but we know that you have to do that to get consumers across.

**CHAIR**—You have a lot higher barriers to entering the market. You have to hang at home and pay extra and subscribe for 12 months.

**Ms Richards**—You have to convince people to pay for the privilege, and that is why you have to give them a compelling product.

**CHAIR**—Whereas with the free-to-airers it is a case of just simply walking down to Harvey Norman and picking yourself up a set-top box.

**Ms Richards**—Yes—at a range of prices to suit you.

**CHAIR**—Thank you, Debra.

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

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

**Committee adjourned at 10.48 am**