

COMMONWEALTH OF AUSTRALIA

## Official Committee Hansard

# HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON COMMUNICATIONS, TRANSPORT AND THE ARTS

**Reference:** Impact of the decision by ABC Radio to discontinue its radio racing service

MONDAY, 3 APRIL 2000

CANBERRA

BY AUTHORITY OF THE HOUSE OF REPRESENTATIVES

### INTERNET

The Proof and Official Hansard transcripts of Senate committee hearings, some House of Representatives committee hearings and some joint committee hearings are available on the Internet. Some House of Representatives committees and some joint committees make available only Official Hansard transcripts.

The Internet address is: http://www.aph.gov.au/hansard

#### HOUSE OF REPRESENTATIVES

### STANDING COMMITTEE ON COMMUNICATIONS, TRANSPORT AND THE ARTS Monday, 3 April 2000

**Members:** Mr Neville (*Chair*), Mr Gibbons, Mr Hardgrave, Mr Hollis, Mr Jull, Mr Lindsay, Mr McArthur, Mr Mossfield, Mr Murphy, and Mr St Clair

Members in attendance: Mr Gibbons, Mr Hardgrave, Mr Hollis, Mr Lindsay, Mr Mossfield and Mr Neville

#### Terms of reference for the inquiry:

To inquire into, and report on:

- The extent of, and the value placed on, the coverage of the ABC's radio racing service
- The impact of the discontinuation of the service on the community and the industry
- The current extent of radio racing coverage and gaps in that coverage
- Future options for the provision of broadcasting services of racing in regional Australia

### WITNESSES

HOWARD, Ms Susan, Head, Local and Regional Services, Australian Broadcasting Corporation
KNOWLES, Mr Colin John, Head, Technology, Strategy and Development, Australian Broadcasting
Corporation

### Committee met at 9.50 a.m.

### HOWARD, Ms Susan, Head, Local and Regional Services, Australian Broadcasting Corporation

### KNOWLES, Mr Colin John, Head, Technology, Strategy and Development, Australian Broadcasting Corporation

**CHAIR**—I declare open this public hearing into radio racing services. I welcome you both, Colin and Sue, and thank you for taking the trouble to come to Canberra today. When the ABC last appeared before the committee for its inquiry into radio racing services you offered to arrange for someone to speak to the committee about developments in digital radio. As this has started to come across our bows now we thought it might be appropriate, as we move to the final stages of the inquiry, to get a handle on what the ABC's thinking might be in that field.

In considering the evidence the committee has taken during the inquiry it has become apparent that the real problem is in getting the radio racing service to people beyond the towns. While we are mainly concerned with finding solutions that will improve access to radio racing broadcasts in the near future, we are looking at the long-term situation. In this context we are interested in exploring the potential for digital radio in solving problems in the long term.

The advent of digital radio opens up some interesting possibilities for broadcasters and presumably offers improved listening for consumers. We are also interested in hearing about these possibilities in the broader context as well as in relation to this inquiry. We would therefore appreciate being updated on developments in digital radio and, in particular, hearing where the ABC is placed in relation to these developments.

I would add that we are also interested in probing the level of consultation. That is not being done in a vindictive way, but we seem to be finding a gap between the ABC's perception of its regional listeners' demands and regional listeners' demands of the ABC. If we could somehow bridge that gap, even in the context of this inquiry, we might be able to work out a solution, even if that takes an interim position followed by a long-term one.

As you are aware, you are not required to give evidence under oath, but committee hearings are legal proceedings of the parliament and warrant the same respect as those of the House itself. The giving of any false or misleading evidence is a serious matter and may be considered a contempt of the parliament.

Colin, it is a bit hard to ask you to make an opening statement because we have not told you the context.

Mr GIBBONS—And you do not know what we do not know!

CHAIR—Do you want to give a broad overview of digital broadcasting?

Mr Knowles—I can probably start off by encapsulating where digital broadcasting is, and from there we can work our way along. Back in 1988, we all expected that digital radio broad-

casting would probably be well and truly with us by the mid 1990s. The unfortunate part about it is that it has not actually delivered. Even today, we are still looking at a very slow take-up world wide. It has proven to be difficult to produce receivers at a respectable price and to make them work effectively. At present, to buy a digital radio receiver, you need to spend a couple of thousand Australian dollars. We have recently purchased some ourselves and we are still waiting to get some that work properly.

The technology issue will get resolved. World wide, the issue has been that of trying to find the niche for this particular product, in amongst all of the other delivery systems for radio and television, which makes it attractive for the consumer to purchase the gear in the first place. Technologically, we can solve it, but if there is nothing in the way of a strong incentive for the consumer to purchase the receivers, the price of those receivers will never come down.

There are a couple of other developments happening. As time has gone on, alternatives to that technology have been starting to emerge over the period of time. There is one which is promoted by a company called World Space, which is now running in Africa, using receivers. It has been pioneering a satellite delivered service which is designed for portable receivers. Its primary market has been in Africa. They have tried to keep the receiver price to about \$300 or \$400. That seems to be reasonably successful in the environment in which they are running it, but once again, a satellite delivered service has some difficulties in that it does not work very well inside your large building unless you have an antenna outside to look at it. Therefore, it is probably more suited to an environment where you have a grass hut roof rather than a tin roof.

Mr LINDSAY—What frequencies are they?

Mr Knowles—Off the top of my head, I do not know; I think it is in the order of—

Mr LINDSAY—Is it microwave or—

**Mr Knowles**—Yes, two gigs or something like that. I should know the answer but I do not. However, it has solved particular problems. It proves not to be as successful in the terrestrial environment, so the company is now working in the US and has decided to adopt the same technology on the ground as the Eureka European—as per the Eureka Stockade—system uses for digital audio radio broadcasting. There seems to be a view that at least the technology which has been adopted for the European model is in fact the right technology. It does get into buildings and it does work. Coming to that, though, we also face the situation that the frequencies which are most likely to be used for that, and in fact the global allocation of frequencies, is in the 1.5 gigahertz band. This is microwave, which means we are now subject to much more point to point coverage. It is subject more to shadowing and in fact the range has become a little bit lower. Therefore, if you start to look at it in the context of taking it out into rural areas, for example, it will be great in the town but once we get out beyond that, you need to find another alternative.

All of those things do not really lend themselves to a proper solution to try to find a wide area coverage arrangement. You can use the system at a slightly lower frequency but then you have to find frequencies for it, television band or otherwise. Along the way there is also some work going on on AM coverage using digital techniques. That is promising but it has also once again

been a long time coming. Whether that gets overtaken by FM or other activities really remains to be seen. In short, we are looking at a situation where I do not think there is a clear-cut emerging situation that says digital radio is going to be here alive and well in the next two or three years. We are doing trials from the ABC at the moment in conjunction with four other commercial broadcasters, trying to promote the idea of digital radio to demonstrate its capabilities.

While all of that is fine, I think that the way in which digital radio will ultimately take off will be in offering something different from what traditional radio does. Whether that means carrying data with the sounds and so on, once again it comes back to the point of making something which is really useful to the consumer.

The consumer is now bombarded with a range of alternatives. They can get sound off the Internet; they can get pictures off the Internet. Sure, that is not portable, but at least they can get it. We have now the third generation of mobile telephony technologies coming along, which has the potential to deliver a whole lot of new things but it only available to people who are mobile. So it is becoming a very confused world in terms of capabilities and possibilities. Of course, as there are more and more competitive services around, the economics of providing yet another niche service becomes more problematic. In the short run, the most effective coverage for any new service is still probably the traditional AM or FM radio solutions.

CHAIR—Do you think that will be the case in the next five years?

Mr Knowles—For the next five years, I think it is probably true.

**CHAIR**—Would there be some merit in the government attaching to its digital television inquiry in 2005 a parallel inquiry into digital radio?

**Mr Knowles**—I think it is too early. As you know, at the time the digital television legislation was announced, the government said that it would make arrangements for digital radio to commence in 2001 as well.

**CHAIR**—That is a pretty forlorn hope now.

**Mr Knowles**—There is a ministerial advisory committee, chaired by the department, which has been looking at the things moving along. While it seems possible that you might actually have a legislative framework which would make it happen for the end of 2001, there do not seem to be a lot of drivers. In fact, we have recently purchased some receivers, and they are difficult to obtain. The Japanese are now thinking of an alternative way of doing it because they have different problems to solve in Japan. So there is this sort of competing situation. We did look at the Japanese option and decided that it was too far removed and it was 2003 or 2004 before it became locked in as well. It really has just stalled at the moment. I think that any attempt to try to even look at it will yield nothing more than what is already known—that it is a watching brief at the moment.

**CHAIR**—We got a very condensed briefing of what you and 2KY and 2UE were doing in Sydney. As it was explained to us, you transmit digital signal in a pipe of five or six signals.

Could you tell us what the ABC's initial thinking is on that in respect of its arrangements? Could you transmit all your signals—city, regional, FM, RN, perhaps a sports channel and Triple J—through the one pipe? Is that a possibility? Secondly, and more particularly, is there a possibility of getting it in remote and regional areas?

**Mr Knowles**—To answer your question, let us take a hypothetical look at 10 years from now. In the planning of digital radio, it has always been assumed that all of the existing services would migrate to digital. In the case of the ABC, because the ABC already has five services, it would be logical to merge them all into one pipe because it makes it easier to handle. So yes, we would package them together. It also provides a bit more flexibility, so you can create subchannels of lower quality in amongst it if you need to. So the size of the pipe that is being postulated at the moment is a pipe which is capable of taking, say, classic FM, Triple J—all of those things—in their best quality and it was working for CD quality. It is possible to divide that channel up into a couple of other subchannels, if you like, and be able to handle more specialist types of programming.

**CHAIR**—Let me be perfectly blunt: would it possible on a day like we had last Saturday, when we had rugby league and cricket from NZ on, to split the regional signal?

Mr Knowles—Yes, it would be.

**CHAIR**—Let me be even more provocative: would it be possible to split the sporting signal into straight sporting events and a radio racing signal?

**Mr Knowles**—All of that is feasible but, just to take you back one more step, while the ABC would have one multiplex in a market, there would indeed be at least one other and probably two other multiplexes in any market. As a good analogy, what we basically have is a large building with strata title apartments in it. Each broadcaster would take out a strata title. They could each use that strata title, which might include four bedrooms, and they could sublet the bedrooms, which is what the subdividing of the channel is like. The arrangements under which the committee which I am a member of has actually looked to try to manage this process are very much like the strata title, saying, 'You do not own a frequency any more because the frequency is shared between a number of parties.' So, just as a body corporate manages a building, you would have a group of people who actually manage the transmitting arrangements.

CHAIR—That is your arrangement now, coming out of Sydney.

Mr Knowles—Yes. This will be the long-term arrangement as well.

CHAIR—But what say the ABC had its own pipe?

**Mr Knowles**—I am saying that the ABC may be sharing a pipe with other broadcasters, or there may be several buildings, all of which have separate strata titles. So the whole package might be several pipes, or might be one pipe, depending on the market. In a small market, certainly in the early days when the economics might be such that it was not worth putting up more than one pipe, it may be that the ABC is sharing that pipe with a range of other broadcasters, so that you try to get penetration rather than quality in the first round and downstream of the de-

mand as you might extend it. In larger centres you would potentially have several pipes, therefore, with extra capacity for a range of other services, such as racing and so forth, to actually occupy some of the pipe.

The advantage of the model is this: in the present system, if you get a radio licence today, you actually have to build a whole lot of infrastructure. You need a transmitter and you need a studio and so forth to go with it. What digital radio allows you to do is that basically somebody else will take care of the infrastructure. To use my property analogy: somebody builds a multi-rise building for a shopping centre. Some broadcaster comes along and says, 'I would like to establish a racing service,' or an ABC service, or whatever. If that is unsuccessful, the loss from moving into some other type of broadcasting is much lower because I no longer own the infrastructure; all I am doing is renting a space. In the same way, in a shopping centre at the moment I can set up for a coffee shop but, if the coffee shop does not work, it might still become a shoe shop. The building owner is still getting some revenue from it, therefore keeping the building going, and the market itself is allowed then to drive the outcomes. So you will see infrastructure owners who will construct it. In fact, the ABC at the moment does not own its transmitters—all of the transmitters are owned by NTL—but we rent space on the transmitters for them to operate and maintain those transmitters. The same would apply to our digital service. So if the ABC were not using the space on the infrastructure, then it would be sublet to somebody else.

Mr LINDSAY—How many CD-quality programs can go out on one transmitter?

Mr Knowles—Five.

**Mr LINDSAY**—Has there been any discussion in the industry about lower quality channels? If there has, would they be mono and what would their bandwidth be limited to?

**Mr Knowles**—The issue at the moment has been more a discussion of how to move from the current arrangement to the new arrangement. Within the industry there is a certain concern not to create a ghetto mentality. A lot of the people still remember the FM debacle, saying, 'We didn't want to get into FM when it started, and now look how successful it was.' There was a suggestion that, at least as far as the existing broadcasters migrating was concerned, they ought to be able to migrate to an even playing field. Beyond that, though, it has been suggested that there are a range of services which would lesser quality mono or otherwise, and you could probably put four mono services into the space of a stereo CD quality. Then you would either arrive at a different allocation arrangement for those, in terms of the licensing scheme the ABA manages—so you could decide to call for a class of services which were different and, therefore, perhaps lower cost to operate and establish—

**CHAIR**—Let us get into practical terms what Peter is saying. Obviously, your FM and your Triple J would have to be at full CD strength, and your regional or your capital city channel that plays a lot of music would want to be at either full strength or pretty close to it. It is probably not necessary for your RN.

Mr LINDSAY—Talkback things, or sport or racing or whatever—

**Mr Knowles**—But I think you come to the point that, if you have somebody creating the program—for example, we already have the TABs running the program—what they would be able to do under this scenario is basically that the owner of the pipe, whether it be NTL or others, and the ABA in conjunction, in making capacity available, could create other outlets for that at a much lower cost than currently the arrangement where you must buy a transmitter.

**CHAIR**—Something you said to me earlier troubled me a bit. You say you would start off with a lesser quality. Are we just going to see a repetition in other fields of radio broadcasting of what we have encountered with this radio racing thing where, if you do not give a full suite of ABC programs outside the capital city, we are going to have this tension that the bush or regional Australia have missed out again? Wouldn't you envisage that the ABC would have its own pipe and within that have five channels or three major channels and four minor channels?

**Mr Knowles**—What the ABC gets in this pipe is going to depend on what the government gives us in money to run the pipe.

Mr GIBBONS—How much is the pipe going to cost?

**Mr Knowles**—How long is a piece of string? I think you could say that it is likely that, at the end of the day, the costs are probably going to be comparable to the existing pipe by the time you get equivalent coverage. The cost per transmitter is much lower, therefore—

CHAIR—But is the coverage as good?

**Mr Knowles**—The economics of delivering in a capital city probably reduces the costs, although you would have four transmitting locations, say, to cover Sydney. Once you get into the regional areas, you have a different problem in that you need more transmitters to try to match it up. You can conceptualise a view where we could cover the major city; we might be able to cover highways and other things; but once you start to try to cover the hinterland and very sparsely populated areas, we have a different set of problems. I say the cost may turn out to be the same because it will be new infrastructure and the prices we currently pay for our existing infrastructure were pegged as part of the purchase arrangement.

**Mr HARDGRAVE**—Before we get too far down this series of pipedreams—to pardon the pun—using your building analogy, I am convinced that there are building approvals involved. You have talked about the ABA. Your aspirations, from a technical point of view and the potential set of possibilities, are years in front of where the ABA are at. Is this the big delay?

**Mr Knowles**—No. If you go back to your building approvals things, at the moment we do not even have a DA.

Mr HARDGRAVE—What is a DA?

Mr Knowles—Development approval.

Mr HARDGRAVE—All the local government people know what you are talking about.

Mr Knowles—We probably have a broad zoning approval at the moment.

Mr HARDGRAVE—In other words, the ABA are that far behind the process.

**Mr Knowles**—It is not the ABA. It is even more fundamental than that. There is no legislation in place that even enables it at this moment.

Mr HARDGRAVE—For digital broadcasting?

Mr Knowles—Digital broadcasting.

Mr HARDGRAVE—I take your point. But what about spectrum allocation.

**Mr Knowles**—It supports spectrum allocation globally. It says this is the piece of spectrum, this is the ideal to use this in. Australia has endorsed that same piece of spectrum. This piece of spectrum is also shared in Australia with the remote area telephone service. In fact, we have to try and squeeze this in amongst the remote area telephone service and that is a constraint on the available frequencies at the moment. What is called DRCS, the remote digital radio concentrator system that Telstra runs, uses the same spectrum, so all of the planning has been run around that.

We have put together a nominal plan that demonstrates that we can accommodate the existing broadcasters within a framework using the available piece of spectrum, making some assumptions about the quality of the services. It says that we can do it and there is a broad based plan. We have a sketch of it and that, if you like, is the substance of putting forward a development approval that says: this is what we want to do on the land and this is how we want to see it structured. The next step is that we need to get the zoning and everything else approved at the local level, getting legislation in place to enable it. From there the ABA would pick up the ball and run with it through the final spectrum allocation process and the licensing process.

The proposal the industry put forward was that the existing broadcasters get rights to transfer into the new spectrum on the assumption that they will eventually come out of their old spectrum and it will be used for something else. The ABA would have to manage that part of the process. On top of that, we would also be looking at how to allow new entrants into the market and what those new entrants might be. How do you move from where, traditionally, you acquire a licence for a transmitter and then you get onto your service to a point of managing a strata title block of flats, which is quite foreign to the existing legislative framework? It also opens up all sorts of new possibilities as to how you do it. It means that, having established that pipeline, the ABC would be using some of the pipes to get there as a content provider within the pipe. Other content providers could equally come along and acquire space in the pipe at differential rates depending on how wide the pipe was.

**CHAIR**—Have I got a bit of a simplistic view of this? Will the NTL be the operator or the owner of the pipe? It is often said that the big mistake made back in the eighties in moving to the competitive market in respect of Telecom—now Telstra—was that had we split the service into two, the pipeline as one and then the services renting off the pipeline, we would not have half the problems we have got today. Would it be possible to have an authority that, for exam-

ple, had three pipes all over Australia? The first pipe would be exclusively ABC and its five or six services, taking an appropriate spectrum for music and a lesser spectrum for the other. Another one would take the primary capital city and regional type programs, again with the ones using high quality music getting a bit more spectrum and the one using AM quality sound perhaps using a bit less. Perhaps a third pipe would take SBS Radio, PNN, TAB, community radio, radio for the blind or the sight impaired. Everyone would be coming off the one system but there would be plenty of diversity. Is that a possibility?

Mr Knowles—Yes, it is.

**CHAIR**—To get it into a very simple format. We seem to inordinately complicate anything we do in telecommunications in this country rather than going back to first principles and getting it very simple from day one.

**Mr Knowles**—We did have an authority like that in terms of the fact that we had a National Transmission Authority at one stage which provided that, which was then sold to NTL. Now that we are in what you would call a free market transmission supply arrangement, if the ABC wishes to get extra capacity we go to the market to see where we can get that and who can deliver the capacity for us. The market now would decide how that got divided up—whether it got divided up into one operator or several operators.

From the ABC's point of view, the ABC needs to secure funding before it can purchase those services. So the next step for us, once the government endorsed a digital radio strategy, would be to secure funding for the operation of those transmitters, recognising that we would be doing that over and above our existing service until such time as the existing service was turned off. That does not put us in a free market as far as our deciding when we can do some of these things; we do need a substantial injection of funding to actually purchase that service. It is the same as leasing a car these days—the way we actually get our transmission services. So we do not have the pipe; we actually have to lease the pipe, in the same way as with your model.

**CHAIR**—What if we took that model back another step and we had a series of pipes with an authority controlling them, whether that was the NTL or another organisation that used the NTL facilities, and then all the radio stations leased their shares of the pipes?

**Mr Knowles**—It is a model which can work quite happily, in the same way as you currently lease a piece of cable from Telstra to connect you from A to B.

**CHAIR**—I am not trying to be unduly philosophical; what I am trying to lead to is: if you can get a model like this in place from day one, you do not have this argy bargy of not being able to have racing broadcasts in one area because you would miss out on other things and so on. By mandating those three pipes from day one, you could cover the whole of Australia with 15 services, albeit that after you got outside the capital city you would have a range of regional ones replacing capital city ones.

**Mr Knowles**—I guess at the end of the day that really comes back to the old economic question of cross-subsidy.

CHAIR—But aren't we going to have the same problem?

Mr Knowles—We will.

**CHAIR**—If we just go with one pipe initially, the bush will miss out on Radio National or SBS or TAB or something, and then there will be a scream, 'We are being discriminated against. We have not got as much as the people in capital cities have got.'

**Mr Knowles**—My commentary about an interim solution is on the basis that, for example, the ABC has five services and there were two other services in a market, and the economics were such that the costs of establishing another transmitter for two services made it prohibitively expensive. It is at that point where you can say that perhaps it is better to reduce the quality of all of those services and squeeze seven into one space, rather than five, simply because it is an all or nothing solution—you either accept that reduction in capacity or do not have them at all.

**Mr HARDGRAVE**—These analogies are usually quite stupid and are driving me to the point of despair, but, if you want to use the pipe one further, the shower that I stood under this morning is also a pipe of water, it is just that it goes through a shower rose and I get about 30 different streams coming out of that one pipe. What I understand digital radio to do is exactly that.

Mr Knowles—Exactly.

**Mr HARDGRAVE**—Thank you. In other words, there may be one pipe, but using digital technology you get six different streams out of the one pipe. So there is no need to talk about additional pipes so much as the way you disperse the streams from that.

**Mr Knowles**—The chairman is actually correct in relation to that matter because there are limits on how much we can carry in each of them, so we need to have three.

**Mr HARDGRAVE**—I accept that. What you are talking about there, though, and you are talking about additional government funding and all this sort of stuff, is providing an additional range of services beyond what you currently are able to do. But it would strike me that if at the moment you have five or six national services out of the ABC, then that is five or six pipes, so arguably you could, using digital technology, create 36 different services, six per pipe.

Mr Knowles—Not the same pipes.

Mr HARDGRAVE—No, but six per pipe. You said before you could put six different streams through digital radio.

**Mr Knowles**—What I am saying is that you can fit about five into one of the new channels. The existing space of a channel is about 200 kilohertz.

Mr HARDGRAVE—But each of those channels currently is carrying a program now.

**Mr Knowles**—We carry one program. In terms of what we could carry with a digital pipe, we have actually got 1.5 megahertz per spectrum. We have much more spectrum needed for a single pipe. That then has to be subdivided in order to be able to utilise it efficiently. It is a new way of delivering the process.

**Mr HARDGRAVE**—There are trade-offs on quality as well because if you start to try to feed five ABC Classic FMs into the one you are going to find that you are missing out on the timpani or something or other when it is picked up by a receiver. Those sorts of things would be balanced out. I am just saying that technically, on the basis of five or six services per six existing channels, you could have 30 or 36 services of some description.

**Mr Knowles**—No, you have still missed my point. This requires new channels. It is not using the old channels at all. It requires new channels and in one of the new channels we can fix six services.

CHAIR—Perhaps seven, if you compromise.

Mr Knowles—Yes, six or seven services.

**Mr HARDGRAVE**—At the end of the day, on a simulcast basis as we are doing with digital television—

Mr Knowles—At the end of the day we give up the old ones.

Mr HARDGRAVE—Exactly, you give them up at the end of the day.

**Mr Knowles**—The work to date suggests that we can accommodate, in most markets, probably about 10 or 12 services and maybe a few more if you want to do it otherwise. So your number of around 15 is theoretically probably about right.

CHAIR—That could be expanded out to 18 or 21, if you want to compromise.

Mr Knowles—In some places it could do.

**Mr HARDGRAVE**—The pipes we have been talking about, though, are temporary pipes until, at the end of the day, some of those pipes that currently exist are going to be—

**Mr Knowles**—They would be re-used for something different. They cannot be used for digital radio; it is a too narrow.

**CHAIR**—Where I come from, Bundaberg, is no great cultural centre of learning, I suppose, but what we have in Bundaberg now is the full suite of ABC services, excluding the capital city service.

Mr HARDGRAVE—It is why they are so learned.

**CHAIR**—We have a commercial beautiful music station, an FM station, a community station and a TAB station. We have nine services even in a place like Bundaberg. We would need two pipes to handle Bundaberg so I would imagine Townsville and Sydney would be a bit different. Bendigo would probably be the same. You would probably have about nine services. Wollongong would have about nine or 10 services.

**Mr Knowles**—Most cities would need two full pipes or two full what we call multiplexes and probably another multiplex which carried more localised services. In other words, one which allowed you to have a good area coverage, which might mean several transmitters, and another one which would be far more localised. In the case of a typical regional centre, community radio tends to cover much the same as commercial if it can. In the case of, say, a major metropolitan area though, community radio tends to be far more localised at a suburban type level because that is where it gets its roots from. Therefore you need to be able to address these in different ways. You do not necessarily want to cover the whole city with the Blacktown community radio station.

Mr MOSSFIELD—It would not be a bad idea, seeing as I come from Blacktown.

CHAIR—I am sorry. I have been monopolising here. Go ahead.

**Mr MOSSFIELD**—I am trying to come to grips with not so much the technical side of it. We are looking at the concerns that some people have about the lack of radio racing coverage for regional Australia. That is basically the issue we have to look at. I think you said that the AM/FM systems will be in for another five years?

Mr Knowles—They will be around for another 10 to 15 years.

**Mr MOSSFIELD**—What we are talking about now is something that would happen after that point. Is that right?

Mr Knowles—Yes.

**Mr MOSSFIELD**—You also created some doubt about the digital system itself and whether in fact it will be something that would be appropriate even after that. Taking all that into account, can you make any suggestions to us about what you think the committee should be recommending relating to providing a radio racing service to those areas that are not covered at the moment due to the ABC withdrawing their coverage?

**Mr Knowles**—If you look at what has been happening in the marketplace to try and resolve that issue, on a number of fronts we have had the racing interests acquiring a range of transmission facilities as they became available. The first of those were issued in Queensland where a number of regional centres in fact acquired quite high-powered services in about 1992. Subsequent to that, the ABA, or the Broadcasting Services Act, introduced legislation allowing a narrowcast service which said you could have a service which was in fact quite specific to a particular function and racing was one of those. It was narrow, and a number of licences were issued for narrowcasting. During the planning process there was a hiatus in terms of not making

available more high-powered channels until the ABA had decided what the break-up in allocation of those channels should be.

In the interim period there were a number of interests, particularly 2KY for example, which acquired a number of low powered town-only transmitters which were really over-the-counter sale licences. They spent their \$20, got them over the counter, put them up and covered the town from an aerial stuck on top of the TAB. That was an interim solution to the next step of the ABA's process which was, having gone through the planning process, to look at what spectrum was available in the marketplace for new channels, what was needed to address reservations for the ABC that the minister may have made and ditto for the SBS. What about new commercial services? What about the other alternative interests—community radio and specialist niche services? The process which the ABA went through was to invite submissions into the process and in most instances I guess the major spearhead of those submissions was the racing industry itself, pushing for high-powered transmitters and the like.

The allocation process that flows from the ABA's final decision about how it carves up the available channels in the marketplace is: if it is for the ABC, then it is hived off and the ABC has the frequencies to run with; if it is for new commercial services, then they are put to auction; if it is for narrowcast services, then they are put to a different auction; and if it is for community radio, then there is a beauty contest that says which community group actually gets it. The TABs have bid at those auctions and have nominally been successful in almost every one in acquiring spectrum.

The focus in each state has been different. In Victoria there has been an interest in using AM rather than FM in a number of places because of the belief that, while it might be a bit more expensive to establish, there has not been the competition for those channels and the recognition that at least in some parts of Victoria FM frequencies were in scarce supply. Indeed, they are in scarce supply. Even the ABC cannot get ones that it might like to have to try to improve our coverage.

I think there has been a pretty successful rollout of the interests themselves helping to push this product and given also that what you actually see from that mechanism is the racing industry helping to fund these services for the interest of its own revenue generating potential. What it has been able to do as a consequence of those specialist services is to offer services which are wall-to-wall racing information, which is absolutely impossible to do in any other vehicle. We have seen racing removed from commercial radio in the country. We have had the same issue with the ABC. There is a relatively small percentage of audiences clearly interested in racing on a continuous basis. Just quoting figures from the Queensland TAB, at one stage I think they believed there might have been up to 14 per cent of people who listen to at least one race on the weekend and one or two per cent listening during the week. But by providing that specialist service, they were able to provide it, even with the minimal amount of advertising, because it was actually self-funding itself. They were able to put it into place where otherwise it would not have gone. They were really cross-subsidising it internally; whereas if you took it on the basis of doing it otherwise, it would not have got there.

In the case of the TAB radio service, the sort of example of being able to do it fairly extensively at a relatively low cost is the 2KY example. They were the leaders in acquiring low powered transmissions while they could not get the others. They put the service up on the satellite and made it readily available so that, if they did not do it themselves, anybody who wanted to do it was able to actually get the thing up and broadcast their program. So the program was readily available throughout the marketplace thanks to the satellite. We accept that there are limitations from the satellite, that it is hard to listen to the satellite while you are on a tractor because the aerial keeps pointing in different directions, but that re-transmission model has worked very well for them. A \$5,000 or less transmitter covers 10 kilometres or more, and that \$5,000 also includes the satellite dish. It has been a very effective way of providing coverage. What it does not do is fill in the little gaps in between.

CHAIR—That is the point Frank is leading to: how do we fill those gaps?

**Mr Knowles**—Filling the gaps becomes a major economic nightmare. If you took a typical market and covered the major centres for the \$5,000, because of our little transmitter model, you then go to the next scale of transmitter where you need to cover 50 kilometres. I am now talking about \$30,000 to \$40,000 and maybe several thousands of dollars per year just to operate the thing to maybe get a one per cent increase in the number of users. It is the old dilemma of trying to provide those sorts of services. Talking from a previous history rather than in my ABC hat, the push has been strongly led by the TABs in the interests of trying to promote their product to get the ABA to grant them or to make space available for them to bid for wide coverage channels. Wherever the ABA has made available a narrowcast channel of substantial power, the TABs have nearly always got it because they have been prepared to pay a dollar more than anybody else.

CHAIR—These are the high powered FMs?

**Mr Knowles**—The high powered FMs and some AMs in some cases. They have actively been out there trying to at least promote their baby to try to get good area coverage because, sure, they would like to get area coverage as well if they can do it at the same time as improvement. There is a motive for them as well because, if they are able to get a high powered channel, they can provide a much better service, comparable to the other commercial services, within the major cities.

**CHAIR**—So part of the answer could be to recommend to government through the ABA or to recommend to the ABA through the government—whatever way you like to look at it—to make available to the TABs within perhaps limited boundaries high powered FM stations, narrowcast FM stations? Is that where you are heading?

Mr Knowles—Yes.

**CHAIR**—We have still got gaps even then, because they still do not have the coverage of your big AM stations.

**Mr Knowles**—We only have a few stations that have that sort of monster coverage. Our city service in Victoria—

**CHAIR**—I will throw up this scenario and you can criticise it: after we allowed for a reasonable quantity of these high-powered FM stations and there are still some gaps, what would be the possibility of having a high-powered AM in western Queensland, perhaps one in New South Wales and perhaps one or two in Western Australia, perhaps funded from one of the government social bonus or RTIF funds, just to fill in the gaps to get back to roughly where the ABC was? Is that practical in financial terms?

Mr Knowles—It is practical in financial terms but it is difficult in spectrum terms.

### CHAIR—I see.

**Mr Knowles**—The ABC's high-powered services in Sydney, Melbourne and Brisbane, which are our main capital city services, and then the Radio National service, are stations which were allocated frequencies a long time ago when there was virtually no crowding on the dial; therefore they have, if you like, entrenched rights. There are no other services operating at the 50-kilowatt level, other than these big ones that we have got which have been there for many, many years. The limit on all new services is up to 10 kilowatts, which is basically the cut-off limit. To get to 10 kilowatts, unlike those early stations, which were omnidirectional, very big mass and covered the world, to get a 10- kilowatt service in today you have to put in a directional antenna and we have to protect places like New Zealand, Indonesia and everywhere else around the place which now are in one spectrum but which previously were protected. They were not there when we first put those major services in. So now we are actually sharing the space with a number of other users, and in addition we are also sharing the space with the existing users of the AM band.

When you put in a new AM service, you usually impact on a number of other services. A few years ago, there was an attempt to provide better AM coverage in Sydney, which meant trying to move their five-kilowatt services up to 20 kilowatts. To do that, they would have had to relocate the transmitters out to the western suburbs of Sydney to look back across Sydney, because of the other problem about radiation issues. Because you are now pointing at New Zealand, New Zealand requires you to put a large reduction of signal going towards New Zealand, which meant that you wiped out half of Sydney in the process. So you reach the point where you cannot solve all of the problems to address the issue. High-powered AM would certainly provide an interesting solution, but the feasibility of doing it at the moment while all those channels are still in use is almost zero. If digital radio took over or FM, if there was enough FM spectrum to do everything, then you might be able to move away and clear up the AM band, allow some more power and negotiate that, through the international agreements, to allow you to have more power in the arrangement. But, as I say, AM is attractive for all countries and therefore there would be a lot of fights about trying to get that thing. What we are trying to do with AM, of course, is protect not just somebody in the local area but somebody who is 1,200 or 1,500 kilometres away.

### CHAIR—So that is not a solution?

Mr Knowles—It is and it isn't a solution.

**Mr LINDSAY**—Going back to where we started, with digital radio in the world, is there some recognised standard emerging or are there countries going in different directions?

Mr Knowles—There is a recognised standard called the Eureka 147 digital audio broadcasting standard.

Mr LINDSAY—That is a transmission standard?

**Mr Knowles**—That transmission standard has been adopted by all of the countries in Europe. It is our preferred standard for Australia.

Mr LINDSAY—So this means standardised receivers in the world?

Mr Knowles—Yes; not in Japan and not in the US.

Mr LINDSAY—What about a standard broadcast frequency for digital services?

**Mr Knowles**—Likewise, the 1.5-gigahertz band has been adopted worldwide for the purpose of digital audio broadcasting. That still allows some countries to make individual decisions about putting it into, say, television Channel 12 as is being done in some parts of Europe, because that channel previously was not used for television. So there are some other flexibilities there. But there is an international agreement about the band. And the receivers all operate nominally on what we call band 2, which is the existing FM band, band 3, which is the television band, and the 1.5-gigahertz DAB band.

**Mr LINDSAY**—Your evidence was that you do not really see digital for another 10 years or so in Australia.

Mr Knowles—Not quite so long, I hope. Give us five years.

**Mr LINDSAY**—At least five years, then. In the marketplace at this point in time, do you see any demand for the features that digital can deliver?

**Mr Knowles**—That is why I say I think it is at least five years: there is not a demand in the marketplace for the specialist features that digital radio provides, except in a very narrow sense—for the racing industry, for example, there are lots of very interesting features which would be very attractive.

**Mr LINDSAY**—Is that because people are becoming informationed-out, that there is just too much choice and here is some more choice again, and people just cannot handle it?

**Mr Knowles**—I think there is a little bit of that. I think the other question is that they are yet to actually believe that they need it. It does not have an immediate appeal.

**Mr LINDSAY**—And, in the industry itself, there is not a strong push from the broadcasters to go digital at this stage?

**Mr Knowles**—I will put it this way: I think we all would want to move as quickly as the market is likely to take it. What we do not want to do is to move into doing what happened in the UK, where after 2½ years of broadcasting, they still barely had—

### Ms Howard—Five transmitters.

**Mr Knowles**—They had five transmitters and the only receivers were in the cars of BBC executives, despite the fact that they had tried to promote it in the marketplace and so forth. So there were very, very few receivers out there and the BBC themselves concluded that the launch of that was 'unsuccessful' and were looking for a way to reinvent it. The situation has been, by and large, the same throughout most of Europe. What we have been trying to do with the consortium exercise we have got going with the commercials is to at least start to expose the public to some receivers and some of the features and possibilities so we can get some proper market analysis of what the features are that the consumer out there might really be interested in.

As you say, they have a range of alternative sources for information. If you are home, you can get the racing information or other information off the Internet, for example, in real time; you might choose to watch it on pay TV; you can listen to the TAB broadcast—the whole issue is these alternative information sources. The thing that radio gives us is portability and mobility. Therefore, you have to find applications which need the portability and mobility and, at the same time, offer really useful added value components. Some people have postulated having a screen in your car to be able to get all this information, but the problem is that it is hard to read the screen while you are driving. Those sorts of issues need to be worked through. There certainly is a big challenge on that and there have been numerous attempts at exploring the space within the trials that have gone on, particularly in Germany, where they have really been pushing the boundaries with pictures on radio, text, graphics, a high-speed Internet and all those other sorts of components. But so far they have not managed to excite any of the consumers enough to pick up the ball.

**Mr LINDSAY**—To come now to what this inquiry is about, which is delivering radio racing services to Australians: currently a fair percentage of Australia has access to radio racing services. I guess that what the Chairman has been looking at is the margins and how to fill that in. You have given evidence that technically it is just impossible—very, very difficult, at least—to fill everything in. Would you agree that people who live in these very difficult remote areas cannot expect a Woolworths or Big W outside their front door, or a fibre-optic cable running up to their house, or a radio racing service—that there is an expectation that is very difficult to fulfil? My view is tending towards the solution that you mentioned a short while ago, of the Internet. In real time, radio racing is on the Internet.Rather than the government putting resources into new transmitters or a new channel or satellite delivery, having seen the way the ABC has taken up the Internet and the foresight and success you have had there, is that the way ahead for the government? Should we be saying that we can give all Australians equal opportunity by having some kind of a subsidy to enable people to have the Internet wherever they are in Australia?

We know that the Internet is available at high speed off satellite at the moment so you only need a standard domestic telephone service to access that if you are in Bullamakanka. Is that the solution that this inquiry should be looking at so, if Joe Blow in western Queensland really wants to hear radio racing, then he gets it via the Internet, and whatever other service he wants via the Internet? They are totally empowered and they have access to all the information that anybody has access to, but some subsidy might be needed for the satellite dish or whatever is needed. What do you think about that solution?

**Mr Knowles**—I think the Internet offers an alternative for a very wide range of products. The issue really comes back to the same problem. You are stuck wherever the terminal is in terms of being able to watch or listen to it.

**Mr LINDSAY**—That is not true because you and I know that you can buy these little 100 milliwatt FM transmitters that you just then radio out to your tractor if you want to do that at minimal cost.

Mr Knowles—You could do that.

**Mr LINDSAY**—I understand the point you are making about the fixed nature of the reception in this thing.

**Mr Knowles**—You could certainly do that. You already have a certain degree of that with the satellite service. For example, the fact that the satellite service is up there has meant that, from the ABC's point of view, it has made it available to all Australians. Government subsidised those receivers for the changeover to digital.

CHAIR—Can people pull down the signal direct from your satellite?

Mr Knowles—Yes, individual people can.

**CHAIR**—In the parliament in the last three weeks, Optus and Farmwide Heartland were putting two slightly different propositions to the government, one using the \$150 million social bonus and the other using a \$240 million RTIF type payment. They were providing the 44,000 remote Australians with a dish, one at 1.2 metres and another at 1.6 metres. Then they both conceded that 1.2 metres would work pretty well in most areas but you would need a 1.6-metre one for the tropics, the wet areas. They would be able to provide three phone channels, a data channel, free-to-air TV, digital TV when it came and pay TV if you wanted it. Would it be possible to have radio channels come down off that? These was to be up link and down link, by the way.

**Mr Knowles**—Yes. If you take the existing Optus service, the Aurora platform that the ABC is carried on, there are about 40 or 50 radio channels on that service. Not all of those are available freely because some of them are distribution services and specialist business services and the like, but the satellite has capacity to carry a very large number of radio channels.

CHAIR—Would it carry the TAB service?

Mr Knowles—It already does.

CHAIR—In all states?

Mr Knowles—Yes.

**CHAIR**—So the problem then would be Peter's premise of the government providing through some social bonus the ability for the people to be able to get the dish.

**Mr Knowles**—There probably needs to be some regulatory arrangement which would allow the TAB to activate those dishes to allow people direct reception. At the moment you cannot get direct reception of the TAB because it is the distribution service and they do not manage it out to every subscriber. They would be in breach of their existing licence conditions if they did so. But, if you were to change licence arrangements to allow them to have a statewide licence for that particular type of service, it could be turned on.

CHAIR—So that would be another solution, as well as the Internet?

Mr Knowles—Yes.

**Mr LINDSAY**—How would you feel about something like Sky Channel, which currently also has a narrowcast service, where the government says to Sky Channel, 'You can turn anybody on who is not within the normal range of a terrestrial radio racing service'?

**Mr Knowles**—I would not feel anything about it, but I suggest Foxtel might feel something about it since they carry Sky as part of their package.

Mr LINDSAY—Do they?

Mr Knowles—Yes.

Mr LINDSAY—I was not aware of that.

**CHAIR**—Sue, one of the things we have found is that although there may have been an internal consultative process from the ABC it does not seem to have gone very widely.

Ms Howard—Do you mean externally to the ABC?

**CHAIR**—Into the community, yes. Sure, there have been surveys, but we have asked quite a number of people, in evidence and informally, about what level of consultation there had been and they said, 'Well, not much.' The TABs told us that the information conveyed to them was largely a fait accompli, that you were withdrawing from radio racing.

 $\mathbf{Ms}$  Howard—You will have to forgive me because I have inherited a long process with this—

CHAIR—Sure, I understand that.

**Ms Howard**—so I have been picking up the history as best I can along the way. My understanding is that the people who were negotiators with the TAB had been talking to them over a space of about 10 years. Probably they had not been utterly direct along the way, but my understanding is that for certainly the last six or seven years before we actually said, 'Okay, that is it,' we had been encouraging them to do the sorts of things that Colin has been talking about. We knew they were pursuing licences and pursuing their own racing interests, so we had been encouraging that to happen on the likelihood that, in due course, we would be pulling out. When it came to actual consultation about the final decision—this is over a series of years—and when I was regional radio station manager in Victoria, part of our brief around the country was to get each station to talk to its local industries, its local interest groups, to find out what sort of reaction there would be if, in fact, we did stop broadcasting racing. So there had been a long period of, I guess, informal conversation.

CHAIR—There has certainly been a period of awareness, going back to 1979 even.

**Ms Howard**—Yes. But, quite specifically, people were being asked: given that we could offer them either the existing mixed, not very satisfactory service or, I suppose, that the decision would then be to run football, what was the general community feeling? The overwhelming feedback was: 'If, in five or six hours of football, we are going to get maybe 3½ to four hours interrupted by racing, we do not want that, thank you.' Then, as we have outlined in the submission, the step before we actually made the final decision was to get all state managers in the areas affected to talk to not just the TABs but their racing authorities, the VRC and people like that, about the likely impacts, to try and sort it through, to talk to them about what they could do to give them a range of options. My strong belief is that it was quite comprehensive. Ultimately, there are going to be some people who feel, because they lost out, because we made a decision that they did not like, that if they did not win they were not consulted. I think that would be unfair.

**CHAIR**—What came through at Barraba was a resentment that the ABC had done this before there was something in place, because when we put to them at Barraba, 'Which service would you prefer if you could get the coverage?' the answer was the TAB service because—

Ms Howard—It is a full-time service.

**CHAIR**—Yes, it has trots, gallops and dogs, and it is available for anything up to 18 hours a day. But this is the thing that I think sticks in people's craws: the ABC with its vast technical knowledge must have known, having regard for the fact that when this happened the TAB did not have even two-thirds of the stations they have got now, that the TAB was never going to get to those regional listeners, certainly not on the basis of these one- and five-watt transmitters and that, given the slowness of the ABA and the LAP process and so on, it was going to be a long time down the track before there were any corrective measures. I think that is where we are really hitting the very deep resentment—that the ABC must have been aware, notwithstanding the fact they talked to the capital city race clubs and things like that, that when they turned this off there were some people who were not going to get a radio service for five or 10 years, if ever.

**Ms Howard**—Although they would still be able to get a phone service, which was one of the things we said to people: 'If you really want your racing information, it is still there.'

**CHAIR**—But the old story was if you are digging the sheep out of the bore drain or you are up in the back paddock or you had the four-wheel drive on the adjoining property, there was just no racing, and to a lot of people that was their Saturday afternoon entertainment.

**Ms Howard**—Yes, to some people. As I have said, we have to balance up what the majority wanted—uninterrupted football or whatever it was. I absolutely understand that there were some people who genuinely felt that we took away something that was important to them. The difficulty for us was that there was a far greater proportion of our audience who were pretty sick of having their footy interrupted or their cricket interrupted, just run over the top by racing results.

CHAIR—But we all get a bit of that.

Ms Howard—No, we do not all get a bit of that.

CHAIR—The other day—

Ms Howard—People in the cities do not get any of that.

**CHAIR**—In that vital half hour to 45 minutes of that test match the other day, when Australia was digging itself out of probably the worst hole it has been in in the last 10 years, they swung to the football.

Ms Howard—When was that?

**CHAIR**—Just last Saturday. It was marvellous. It was this great thing. Australia was five for 29. All of a sudden, they were hitting fours all over the place and the crowd was roaring. Martin and someone else were belting the New Zealanders all over the place. It was the greatest run rate. They scored 90 runs in 58 minutes. It was a faster rate than a one-day match. Everyone was hyped up, so we are now crossing to the football.

Mr MOSSFIELD—It is the footy season.

**CHAIR**—But I am saying the point is there will always be someone who will not like it. There will be some people who do not want the news. I notice you do not always break for news right on 3, 4 and 5 o'clock; you allow a bit of flexibility.

Ms Howard—That is right.

**CHAIR**—But there are others who are pedantic and probably say, 'No, I want three minutes of news at five o'clock or four o'clock or three o'clock or whatever it is.'

**Ms Howard**—Paul, just imagine if you were—because I am a Victorian, forgive me—a mad keen Essendon supporter, you wanted to follow your team through the season and you are living in Horsham, say, or somewhere like that. Every single week you listen to your team and it is interrupted by probably about three or four hours of racing and you can miss most of the game.

The feedback we got was that the majority of people were pretty fed up with that—and it was a lot of feedback. I have taken many an abusive call from a football fan in my time.

**CHAIR**—Notwithstanding the fact I can understand the ABC working towards going out of it, but what we have encountered is—and people have said to us—that the ABC with its vastly superior technical knowledge must have known when it ultimately pulled the pin it was going to leave some Australians in limbo for a long time, if not permanently.

**Ms Howard**—Some Australians are in limbo about some of our services too. There are gaps even in our coverage, let alone the others. We honestly believed at the time that there were enough other available services to give just about everybody in Australia some access to racing information.

**CHAIR**—In this information you have passed on to the secretariat, it says that the cost was about \$400,000.

Ms Howard—Somewhere between \$400,000 and \$450,000.

CHAIR—And then you had contributions from the TAB.

Ms Howard—Yes.

CHAIR—Was that \$450,000 net or gross?

Ms Howard—The \$450,000 was net, I would say.

**CHAIR**—What is your reaction to the suggestion that it be put back on a limited basis until some of these other technologies and the LAPs are sorted out? What would be your reaction to taking the service back under a special government subsidy for, say, three years?

**Ms Howard**—I hope I am not the one that has to take the complaint calls from all the footy supporters.

CHAIR—You are the director of regional radio.

Ms Howard—I do not know, I would have to think about it. I am not quite sure how we would do it—how we would mount that coverage, how we would afford it. I would need some time to think about it.

CHAIR—All your ex-callers now are working for other people?

Ms Howard—Yes.

CHAIR—And your radio racing experts have gone off to other fields, presumably.

Ms Howard—By and large, yes.

CHAIR—Is there a core of those people left in the ABC?

Ms Howard—No.

CHAIR—So you say a temporary reinstatement would be—

Mr LINDSAY—wellnigh impossible?

Ms Howard—Pretty tricky for us.

**CHAIR**—What occurred to me this morning when I looked at this—it was the first time I had seen this paper—was that we are talking about multimillion dollar solutions, provided either by government or by the TAB organisation, whereas half a million dollars could provide a very cheap, inexpensive solution until some of the new technologies are in place. If the government were to accept that Optus proposal, for example, that would at least put 44,000 people into the loop with a whole range of services, and that would be done in about two years. Farmwide Heartland, if they are the successful bidders, have a similar opportunity. The Internet is improving all the time, and digital television may provide the opportunity for an enhancement channel that carries racing from either the ABC or one of the commercial channels. Perhaps three or four years down the track there will be a lot of alternative services, even in reasonably remote areas. But, in the interim, the government and members of parliament are under pressure to provide some alternative.

**Ms Howard**—Anybody with a phone has access to racing information now. What you would be suggesting, therefore, is disadvantaging, say, 85 to 90 per cent of the regional radio audience that does not want racing information. Essentially, what they say is that they want equity with people in the city on ABC services. If that model does not give them equity, they do not get the football matches, the cricket coverage and those sorts of things that they want in that way. It is a very vexed issue.

CHAIR—Are there any other questions?

Mr LINDSAY—I think that sums it all up.

**Mr MOSSFIELD**—I do not know whether you could comment on this: the way the industry is going now, will there be sufficient incentive for the 2KYs and others to provide the service to those very remote areas? Would that be a more practical solution than the ABC coming back into the field?

**Mr Knowles**—The service is available off the satellite now—an outlay of about \$1,200, if you do not already have a satellite dish, can give you access to that—so, if you make some simple change to the regulatory arrangements to allow those people to be turned on, a lot of that disappears. There is a solution to the extent that the program is already distributed virtually Australia-wide. It just is not accessible because of the other regulatory rules that fall around it.

**CHAIR**—Thank you both for travelling to Canberra today. I know it is inconvenient to have to take half a day out of your working time—and by the time you get back it is probably the

best part of a whole day. I acknowledge that you have been very forthcoming with additional information, but if the committee has further questions I trust we can contact you. We will also send you a copy of the *Hansard* transcript of evidence.

### Resolved (on motion by **Mr Hollis**):

That this committee authorises the broadcasting of this public hearing and the publication of evidence given before it today.

### Committee adjourned at 11.05 a.m.