HOUSE OF ASSEMBLY

PUBLIC WORKS COMMITTEE

GOVERNMENT RADIO NETWORK CONTRACT

Old Parliament House, Adelaide

Wednesday 17 March 1999 at 11.20 a.m.

(OFFICIAL HANSARD REPORT)

PARLIAMENT OF SOUTH AUSTRALIA

MEMBERS:

Mr I.P. Lewis MP (Presiding Member)
Mr G. Scalzi MP
Ms L. Stevens MP
Ms M.G. Thompson MP
Mr M.R. Williams MP

WITNESSES:

JOHN CRYER, General Manager, System Solutions and Sales, and GREG BOUWNEESTER, Market and Product Planning Manager, both of Commercial, Government and Industrial Solutions Sector, Motorola, 6 Caribbean Drive, Scoresby, Victoria 3179; and JOHN WILSON, Area Manager, and BOB PHOENIX, Manager, Customer Access Team, both of South Australian Area Office, Australian Communications Authority, 10 Pulteney Street, Adelaide 5000, called and examined:

748 THE PRESIDING MEMBER: Welcome, and thank you for appearing before the committee this morning. Before proceedings begin I would like to bring the following matters to your attention, as I do to all witnesses who appear before this committee from time to time as it conducts its hearings. Sections 28 and 31 of the Parliamentary Committees Act outline the privileges, the immunities and the powers of the committee. Witnesses should note that this hearing is a lawful function of Parliament and, as such, warrants the same respect which Parliament itself demands. Everything that is said in here is privileged, meaning that it is subject to the same privilege as proceedings of Parliament itself. You cannot be sued or sue anyone for anything they have said in the proceedings of the committee.

They are open to the public except when the committee is deliberating on evidence it has received, or if witnesses request that part of their evidence be submitted in private for reasons of justifiable confidentiality. Unless witnesses request that the evidence be received *in camera*, evidence given in this hearing is available to the public. All evidence presented in this hearing will be recorded by *Hansard* and a copy of the transcript forwarded to witnesses for checking for accuracy. At the outset please begin by introducing yourselves, including your titles, for the record. The committee would then like you to summarise anything that you wish to put before it, adding any further details or facts relevant to the inquiry, separate from what you have already said at that point. Members of the committee will then ask questions to clarify aspects of your remarks or aspects of the information that we have been seeking relevant to the inquiry to this point. Please proceed.

MR CRYER: I am the General Manager of the System Solutions Group for the Commercial, Government and Industrial Solutions Sector of Motorola. We look after all the major radio networks for Australia and New Zealand.

MR BOUWNEESTER: I am the Market and Product Planning Manager for Motorola, in the same division as Mr Cryer has detailed.

MR WILSON: I am the Area Manager of the Australian Communications Authority, which basically encompasses all South Australia.

MR PHOENIX: I am the Manager, Customer Access Team, Australian Communications Authority, South Australian office.

MR CRYER: I guess that everyone is familiar with Motorola, so I will not go into that part of the introduction other than to say that, since Motorola was founded back in the 1930s, a major focus of our business has been radio solutions; we have a long history there and we have been very successful. One of the key principles of our success has been our sincere effort in understanding customers' needs and developing our products and solutions to meet those needs. I would like to assure everyone that that is certainly the case here in South Australia: the solution that we will be supplying to the South Australian Government and the people of South Australia will be nothing less than a showcase.

Not only have we designed the system with the needs of the agencies carefully in mind but also we have chosen the technology to suit the application. I have with me here today Greg Bouwneester, who is effectively our technology spokesperson; he understands the technology very well. He has an extensive background in that area and is very well qualified to answer any questions you have in relation to the technology. We are very pleased to be here to answer those questions.

749 THE PRESIDING MEMBER: We will begin by dealing with the Motorola questions that the committee has. In general, can you tell us if Astro Smartzone is currently installed in any other place either within Australia or elsewhere in the world in the form in which it is proposed to install it in South Australia?

MR BOUWNEESTER: The Motorola Astro Smartzone technology has been installed extensively around the world; we have in excess of 150 Smartzone systems installed worldwide. Currently, in Australia probably the single biggest is in New South Wales. We are continuing to evolve and roll out the technology in a number of major sites as we are speaking today, and we can list a few. MTS Mobility in Canada is one example of technology virtually identical to that proposed for South Australia. It has been deployed in a wide variety of different applications, in agencies from public safety through to utility and other agencies. So,

it is certainly a world proven and feature-rich solution that meets the requirements, and varying requirements, of different agencies.

750 THE PRESIDING MEMBER: Is it installed elsewhere to the same extent in its service range as that which is proposed in South Australia—across agencies and across the geographic space that we propose to use it in South Australia?

MR BOUWNEESTER: MTS Mobility, the Canadian customer, is a good example of that. Their system is continuing to roll out.

751 THE PRESIDING MEMBER: Where in Canada is that?

MR BOUWNEESTER: Ontario, I think, but I can check up and forward the exact details. The system currently stands at something like 45 or 50 sites. It is being rolled out to in excess of 125 sites, which is larger than the proposal for South Australia. It uses a mix of both analog and digital technology, as is also proposed here in South Australia, and has public safety agencies on it such as the Royal Canadian Mounted Police, the Winnipeg Police and various other users.

752 THE PRESIDING MEMBER: When was that installed, or is it still being installed?

MR BOUWNEESTER: The system is operational and, like many of these systems, was installed for a particular requirement and size. The exact date I am not sure of, but I think it was in 1994 or 1995. What is happening now is that they are embarking on a program to take it from that 45-site system to a 125-site system. Like many of these networks, such as that in South Wales and many around the world, they start off with a particular requirement and, as users adopt it, they want greater coverage, greater expansion, and therefore they tend to roll out.

753 THE PRESIDING MEMBER: So, Astro Smartzone as proposed for South Australia is a flexible system that can migrate across emerging technologies to meet a range of requirements within agencies, and enables the splicing of analog to digital across time as those changes occur; is that a fair summary in layman's terms, if I can suggest that I am pretty much a layman in these matters?

MR BOUWNEESTER: Certainly. One of the unique features of the Smartzone Astro technology is its ability to provide a hybrid or mix—as you said, a splicing—of both analog and digital technology, so that you can use analog subscribers or analog radios on the network and inter-operate and work with the digital subscribers as well. That is such a powerful benefit—and we see many users around the globe choosing to go down that path—is

because there is still a considerable cost differential between analog and digital subscribers. A large number of agencies' requirements can be met with analog technology.

754 THE PRESIDING MEMBER: To the nearest $10 million or $15 million, what is the investment being made in Canada in the system you are speaking about? Is the order of the investment in the tens of millions or hundreds of millions?

MR BOUWNEESTER: The current upgrade is of the order of $US30 million to $US40 million. That is building on the existing network, so that is the expansion portion of it. As to the investment that went into the initial network, I would need to check details of that.

755 THE PRESIDING MEMBER: Will you send that to the committee within the next few days, please?

MR BOUWNEESTER: Certainly.

756 THE PRESIDING MEMBER: In New South Wales, we are told, the Motorola equipment is restricted in its use and applications to a few agencies, and is not as broad as is proposed in South Australia; is that so?

MR CRYER: Certainly from Motorola's point of view, we are not restricting it.

757 THE PRESIDING MEMBER: But the choice of the Government has been to use it in only a few agencies, such as police; it is not whole of Government.

MR CRYER: The New South Wales Government radio network, I guess, has evolved differently from what is proposed here in South Australia. Effectively, they put in a pilot system to start with. I think they spent something of the order of $5 million to put in a small network. That network was not designed specifically to address the needs of police and emergency services from day 1: the general objective in New South Wales was to evolve the network. That is what has happened. It is now, of course, much larger than it was. We are expanding and adding a lot of the technology that we will be installing here. But the Government has taken a different approach. Instead of designing the network from day 1 to meet the needs of police and emergency services, it took a general Government agency approach.

MR BOUWNEESTER: Having said that, it is important to note that there are currently on the network a large number of agencies, including fire and ambulance, and in excess of 15 000 subscribers. So, it is being embraced by New South Wales. We are at 60 sites operational and expanding.

758 THE PRESIDING MEMBER: Is it true that presently handsets issued for use in that system are not being used by the people in the agencies to whom they have been issued, and why is that so, if it is so? Do you know anything about that?

MR CRYER: I have no knowledge of that.

MR BOUWNEESTER: Neither have I. I am unaware of that situation, if it in fact exists.

759 THE PRESIDING MEMBER: As far as you are aware, all the equipment that has been issued by the Government and supplied by Motorola is functional and in use?

MR CRYER: Absolutely. We have not been advised of any problems.

760 THE PRESIDING MEMBER: Is there any difficulty in getting communications between components of the system in any parts where it has been installed? What I am asking is: are there circumstances in the New South Wales situation, of which we have been told anecdotally, in which it is not possible to get the message across through the radio network structure as it is stands, for some reason?

MR CRYER: I have no knowledge of that.

MR BOUWNEESTER: The technologies about which we are talking have no limitations that would form any artificial barriers to that sort of communication.

761 THE PRESIDING MEMBER: So, there is no failure on the part of the technology more or less than would be the case with any alternative technology?

MR BOUWNEESTER: One key feature of the technology is its ability to mimic similar traditional, conventional radio systems which allow users, at the simple press of a button, to communicate with a large group of co-workers, if you like, spread across a large geographic area. That is one of the key strengths of the technology.

762 THE PRESIDING MEMBER: Mr Cryer and Mr Bouwneester, you both have fairly close knowledge of and regular contact with the people in New South Wales who are using the Astro Smartzone technology and the equipment that hangs off it.

MR CRYER: Certainly, and I add that the satisfaction of those customers in New South Wales is of paramount importance to my business group. I feel very confident that if there were a problem we would know about it and certainly address it.

763 THE PRESIDING MEMBER: Is there any other type of technology, apart from Astro Smartzone, that Motorola is currently preparing for release or has released in the marketplace that would compete with Astro Smartzone?

MR BOUWNEESTER: It is probably worth spending a few minutes elaborating on the technologies in the radio area in which Motorola is involved. Motorola, as Mr Cryer mentioned, has been at the forefront of two-way radio technology since its inception. Emerging digital technology is coming from a number of different areas in the globe, including Europe and North America. In Europe it is Tetra and in North America it is APCO, as well as a technology called Iden. Motorola is unique in that it is the only manufacturer that has been actively involved in all of these developments and, in fact, is in the process of fielding technology for both Tetra, APCO and Iden, as well as new analogue technology.

When we sat down and looked at the requirements for South Australian agencies, it was not as though we had one solution that had to fit this particular requirement: we could offer a wide choice of technologies, and the technology that was most suited to this application, by a long shot, was the Astro Smartzone technology. The key reason is that it is unique to the Australian marketplace and the South Australian environment. Australia is more aligned, from a geographic distribution and an operational perspective, to North America than Europe; therefore the technology we are talking about is designed to provide greater coverage, especially in rural areas, as opposed to the European type technologies that are designed for small footprints and lots of users.

764 THE PRESIDING MEMBER: More urban environments.

MR BOUWNEESTER: Definitely. The reality is that Europe has 300 million users in probably a quarter of the geography of North America, which has 300 million users. It is very different. It also has great flexibility. One key feature of the technology—and we touched on this when we spoke about analogue and digital—is that its capability allows the user to inter-operate provided it is within the switching range to existing networks. So, there is a smoother migration. It is available in the spectrum bands which are currently allocated in Australia for commercial radio use. At the moment the European technology is available only in other bands that are not readily available.

A very powerful feature is that of direct mode: the ability to take a portable radio and talk directly, network independent, to another portable radio. For argument's sake, if a guy on the hose at the fire front needs to talk to the guy on the pump, he can do that irrespective of whether he is in coverage of the network. Astro Smartzone technology operates at similar power levels to that which the current agency is accustomed. The European Tetra technology is based on lower power levels and therefore less coverage. That issue goes further in terms of the roll-out of a network: because you have less coverage

you need more sites, more infrastructure, more linking and more frequencies. They are a few of the key features.

One very important feature of digital technology is that it has the ability to provide very secure end to end encryption, which effectively means that from whereever one is transmitting on the radio to the network, right back to the console via the wire line, the system is very secure and can be encrypted.

765 THE PRESIDING MEMBER: Is Motorola selling any other brand name technology package?

MR BOUWNEESTER: It sells Dimetra, which is our brand name for a Tetra solution in Europe. We sell Iden, which is used extensively at the moment in North America for public access services. We sell MPT 1327 systems, which is an older analogue trunking technology and which is similar to dialling a number in a telephone system; and we sell conventional technology.

766 THE PRESIDING MEMBER: Do you not have a package that competes directly with Astro Smartzone?

MR BOUWNEESTER: In relation to the application about which we are presently talking, Astro Smartzone is the best suited.

767 THE PRESIDING MEMBER: And the best available?

MR BOUWNEESTER: Yes.

768 THE PRESIDING MEMBER: Will current retailers of equipment in South Australia be able to continue to supply that equipment to groups, such as surf lifesaving and sea rescue organisations, and the like, where they can and do sell equipment which can be used by each of the clubs or affiliated local bodies within those organisations, or has Motorola restricted the number of retail outlets for its equipment in South Australia by contract?

MR CRYER: Today, there are certainly no plans to restrict the distribution channel for the products. In fact, once we understand the subscriber requirements in South Australia a little more, we intend to establish the distribution channel. We see that as being a combination of our direct sales team and a number of indirect channels—a number of dealers. Certainly we do not expect the indirect channel that is in place today to cope adequately with the number of agencies and customers.

769 THE PRESIDING MEMBER: If someone wants to buy from you wholesale, you will not restrict that for equipment that is otherwise lawfully available through some other retailer?

MR CRYER: Absolutely. We have no reason to restrict the sale of equipment other than we need to ensure that those handling it are properly qualified and certified in terms of programming the equipment to suit the agency's needs. If they are doing that there is a question of whether or not those suppliers should have any servicing capability.

770 THE PRESIDING MEMBER: Will that training be available to anyone who wishes to undertake it?

MR CRYER: Absolutely.

771 THE PRESIDING MEMBER: It will be a free market at the retail end?

MR CRYER: We would like it to be as free as we can practically make it.

772 MR WILLIAMS: This committee has received a lot of evidence on the different types of radio equipment. We are not experts but we have been hearing conflicting evidence, as well as a fair bit of hearsay and innuendo. I will read to you a statement from a document and ask you to comment. The document states:

> With Motorola's considerable commitment to the Tetra technology it is highly unlikely that there will be any further development of the Smartzone technology. Indeed, it is questionable what level of support will be provided for Smartzone technology in the future.

MR BOUWNEESTER: As a result of the marketplace and the unique requirements in Europe, Motorola is committed to the development of Tetra technology. For the same reasons it is also more than committed to the development of the Astro Smartzone and APCO technologies in North America. The interesting concept here is that Smartzone represents the switching technology that we are using for both our digital platforms in North America and our Tetra development. Motorola is in the unique position of supporting both. The market requirements and the potential markets in North America are massive and justify these dedicated solutions.

As I said, at the moment we have in excess of 150 networks. Without going into detail, we have billions of dollars worth of opportunities in the North American market for Astro Smartzone type technology. To say that we will back away from it is nonsense.

MR CRYER: One of Mr Bouwneester's responsibilities at Motorola is product planning. He has a vision of the product road maps for both these technologies. Something we discuss a lot is, obviously, where these road maps fit within our marketplace and, suffice to say, the road maps of both products go way into the future.

MR BOUWNEESTER: Exactly. Tetra is a technology that is evolving and just coming into the market now. Our Astro Smartzone technology is a little more mature and proven but is still evolving and developing with new features. We have plans to develop new products and features for both platforms as well as our other platforms: the Iden platform and conventional platforms. Certainly we are fully committed to the evolution of it and in line with some of the standard development in North America.

773 MR WILLIAMS: Do you see the long-term futures of analogue and digital technology as being equal or will one take over from the other?

MR BOUWNEESTER: It is hard to predict `long term' because you start crystal-ball gazing. The functional requirements of many users today can more than adequately be met by analogue technology. The reality is very complex. The cost of analogue is still cheaper than digital. Huge markets are evolving, especially in Asia and Latin America, which are driving the development of analogue. While we are seeing digital technology being developed; we are also seeing a lot of investment in analogue technology which is driving down its cost. I do not foresee analogue magically going away tomorrow. It is not like the cellular systems which will automatically switch off.

774 MR WILLIAMS: This project in South Australia has been in the melting pot for six or seven years. Is that a normal time lag for these sorts of programs?

775 THE PRESIDING MEMBER: Or is it that it is just normal for us?

MR CRYER: In our experience, no. This is an abnormally long cycle for a project of this type. It is not unusual for a project of this type to take two or three years to reach a conclusion, but certainly six or seven years is abnormal.

776 MS STEVENS: The committee is very concerned that when this equipment is put in place it will become obsolete. We have received a lot of information about various systems. For example, the SOCOG system bought for the Olympics was described by one consultant's report as `almost obsolete before its launch and more expensive than the rival systems'. How do you respond to that and how does the system that we are buying from you differ from that? Obviously we would not want something to become obsolete as soon as we buy it, as well as its being more expensive than rival systems.

MR CRYER: I will let Mr Bouwneester answer the obsolescence part of the question, but I need first to make a statement. Motorola has no official relationship with any Olympic body. We can talk to you about technology, the Astro technology and the question of obsolescence but we have to leave it at that.

MR BOUWNEESTER: In terms of obsolescence, Astro Smartzone will certainly not become obsolete. We are committing vast amounts of research and development into its further development. It is seen as the way forward for our North American and Asian markets. We are continuing to accept orders for it and for features that are still being evolved. Just recently we received orders for this technology from the Dehli police, as well as a $60 million contract in Minnesota. We have plans to develop new subscribers, infrastructure and technology. It is anything but obsolete. We have probably the largest in-store base of this type of technology and we want to take our customers forward. It is certainly not an obsolete technology.

777 MS STEVENS: I refer to repair and maintenance. I understand that Motorola has no manufacturing operations here in Australia and we have been told that repairs and maintenance will be carried out in South Australia. Is that correct and, if so, what will you be doing in the way of setting up workshops and maintenance facilities and how many people do you envisage those operations will employ?

MR CRYER: It is certainly our intention to service all of the equipment in South Australia. At this stage we do not know what the subscriber part of the contract will mean to us—we are waiting to ascertain that. We have no intention of sending anything out of South Australia or out of the country unless it is absolutely necessary. We could not give you a guarantee that there would not be an item of equipment that would not need to be brought in from overseas.

778 THE PRESIDING MEMBER: But the bulk of it will be done here?

MR CRYER: That is our intent. The number of people employed will be to the level of staffing required. That is hard to tie down.

779 MS STEVENS: When would you see the repair and maintenance section being set up?

MR CRYER: We will have warranty obligations from day one and we certainly intend to honour those obligations.

780 THE PRESIDING MEMBER: Repairs and maintenance are really part of the contract?

MR CRYER: Absolutely.

781 MR SCALZI: What is the life span of this project before we have to have a major injection of investment—five or 10 years?

MR BOUWNEESTER: If you are talking of the longevity of the equipment, we have seen systems we have installed lasting 10, 15 or even 20 years. From a robustness and reliability viewpoint, that is the order of magnitude we are talking of. If you are talking of an evolution of features, our technology continues to develop and evolve and it becomes a question as to when or if the State sees the benefit in upgrading to these new technologies, features and benefits. It very much becomes a question for the State to answer.

782 MR SCALZI: Similar to computers?

MR CRYER: Yes. That is why the backward and forward migratibility is so important. Technology is changing so rapidly you do not want it to become obsolete. We need to plan as much migration as possible into the solution for the customer.

783 MR SCALZI: You stated that this is the best system for our needs. You mentioned it is in North America, Canada and India, which have similar needs and geography. In those countries with those specific needs are there any systems other than Astro SmartZone and, if so, what are they?

MR BOUWNEESTER: In North America there are competitive systems. A number of our competitors supply systems. One of the key drivers out of the North American market in the trunking field has been group based trunking, which means you pick up the radio, push the button and everyone is informed. There are a number of organisations that provide that technology. In Europe the direction was more along the lines of one to one. They are just getting into group based technology. In short, the Astro SmartZone technology competes in an open market place against other manufactures' technology.

784 MR SCALZI: But if it was more efficient for Motorola to provide another system or combination system it would have done so?

MR BOUWNEESTER: Certainly. We said that it makes sense for us to have a single technology that we can distribute worldwide: can we come up with a technology that meets the specific and unique requirements of all the different marketplaces? Unfortunately the answer was `No'. The International Telecommunications Union probably three years ago now said, `We would like to get involved in setting digital standards. Let us look at projects and at what standards are out there and see whether we can select one.' At the time APCO, Tetra and Astro were put forward and they could not make a judgment call as to which should be superior. They recognised that each technology has evolved for its specific market

requirements and they would not call a particular technology. We need to ensure we are providing the best solution for our customers.

785 MR SCALZI: You need to compare apples with apples. You need to look at the flexibility of digital and analog.

786 THE PRESIDING MEMBER: You are confident that this system, the framework and the things that are hung on it will go on being relevant for two or three decades?

MR BOUWNEESTER: Yes. The relevance gets down to the State's requirements. What we understand of the State's requirements today, certainly there is no trouble.

787 MS THOMPSON: I have been looking at a press release from Motorola in the US talking about the system being installed in Nashville. I do not understand all the letter names used for the agencies involved. They say that the system will have four dispatch centres covering Metro Fire, Office of Emergency and Management and EMA (whatever that might be), Metro Police and NES, which I guess could be National Emergency Service or anything else. It states that, `Supervisors will manage the voice and data system from each of the three locations using a total of 29 new Motorola Centracom Gold Series elite radio dispatch consoles.' How does this, at a cost of $US34 million, compare with the system we are looking at in South Australia?

788 THE PRESIDING MEMBER: Is it the size of the footprint?

MR BOUWNEESTER: I cannot remember the number of sites they are deploying.

789 MS THOMPSON: Can you provide us with more information? What are we looking at and why do we keep hearing different costs for the value of the system? It has been moving massively and now we hear of $US34 million. We need a basis for comparing systems.

MR CRYER: I am sure we can do that.

790 MS THOMPSON: In terms of the contract, what is Motorola doing? We understand you are providing the equipment, but today you have said you do not know whether the subscriber part of the contract will be yours. What does `subscriber part' mean and where do you fit in in terms of programming equipment and repairing equipment? How much are you involved in the big system?

MR CRYER: Our expectation is that the first stage of the contract will be an infrastructure component to the value of something in the order of $30 million. That is our expectation, based on our discussions with the prime contractor. Then it is a matter of the expansion of that first phase out into the more rural areas, which will mean the addition of base station equipment as required. The terminal product—the two way radio devices the agencies will want to operate on the network—will be required in different volumes by different agencies at different times. Today we do not have an understanding of how that take up will occur. The contract as we understand it will be for the infrastructure. The subscribers and base stations will come as required. That is how we understand it today.

MR BOUWNEESTER: Effectively we are a subcontractor and we are talking of maintenance and other services that we are effectively offering to the prime contractor, so the relationship still needs to be finalised between us and the prime contractor in the State.

791 MS THOMPSON: Where does the programming of the handsets fit in?

MR CRYER: It is still to be defined with the prime contractor, the State and the distribution channel we end up setting up. There are several options available. The key is to make sure we understand the unique requirements of each individual agency. We have had lots of experience with it in New South Wales. Each radio has quite a large software component that needs to be managed by competent organisations. There are various options yet to be defined. Motorola can certainly do it, but we are open to discussing the options.

792 MS THOMPSON: Are you hoping to be involved in the training?

MR CRYER: We would strongly suggest that we should be involved in the training since we have that expertise.

793 MS THOMPSON: Given that negotiations are still continuing, what would be the order of the value of the subcontract that you are hoping to negotiate with Telstra?

MR CRYER: In the order of $30 million is our expectation today.

794 MS THOMPSON: Does that include the handsets?

MR CRYER: No.

795 MS THOMPSON: What is the value of the handsets in addition?

MR CRYER: The system is being dimension designed to cater for 12 000 handsets over the seven year contract. It is a matter of whether those 12 000 handsets eventuate and over what time frame.

796 THE PRESIDING MEMBER: You are saying that it depends on who buys what. You are talking of the software and transmission receiver towers and arrangements. That is the $30 million that is the subject of the subcontract?

MR BOUWNEESTER: It is difficult to quantify the subscribers as there are a broad range from the analog to the high-tech encryptic ones and that mix is unknown.

797 MS THOMPSON: Does that mean different handsets at different costs?

MR BOUWNEESTER: Yes.

798 MS THOMPSON: What is the cost of a handset?

MR BOUWNEESTER: To give an idea of the differential, an analog subscriber can cost between 30 to 55 per cent less than a digital subscriber.

799 MS THOMPSON: Are they $22, $220 or $2 200 each?

MR CRYER: The Government and the prime contractor has the schedule of pricing. There is quite a wide range from the high—

800 THE PRESIDING MEMBER: Anything from a 20¢ tin whistle to a $20 000 flute?

MR CRYER: That is an interesting analogy. Something in the order of $1 000 for a basic analog radio to $2 500 to $3 000 for a fully featured radio, but you would need to refer to that schedule to confirm that. It is with the Government.

801 MS THOMPSON: And you do not have much idea of the mix at the moment? Do you have any sort of feel for the mix?

MR CRYER: We understand the Government's view is that two thirds of the network would be analog and we would support that at this stage. Not everybody needs digital and there is no point spending the money on a digital subscriber if you do not need it. I think another thing we should add here is that this product line is evolving. Motorola has to be competitive in the worldwide marketplace, and as other technologies come along we will have to become more competitive. So, we expect that the subscriber pricing will drop over time to keep us competitive. There are some lower tier subscribers who are in the planning process at the moment and that should be at even lower cost than we have today.

802 THE PRESIDING MEMBER: Is it fair to say that, even though Motorola might like to think it could do what Bill Gates did for computing, the nature of the beast and the competitive elements within the free enterprise framework through which this kind of material and its components are delivered will prevent that from happening?

MR CRYER: Absolutely. This is a fiercely competitive market.

803 THE PRESIDING MEMBER: Mr Wilson, can you tell us something about radio frequencies which can be available or which are already available (or a combination of the two) that will make it possible for this system to function in a way that meets our needs? This committee's duty is to ensure that the public interest is protected by the decision taken by Government. This committee is not an arm of Government: it is an agency or a subset of the Parliament. Its duty is the public interest regardless of political considerations, but it is still comprised of politicians. In a perfect world it would be good if it were not. Do you understand what I am saying to you? We need to be satisfied that we are not buying something which will become redundant because of changes to frequencies that cannot be accommodated—changes in the use of frequencies available to the agencies. Can you tell us something that will reassure us on that point, or enable us to make recommendations or sound warning bells?

MR WILSON: The committee probably appreciates that currently the Government radio network is operating in the VHF band. We have expectations from our clients that they will come up with their technical solution and their system architect and we will come up with our authority to determine the availability of frequencies to accommodate that. I am not too sure, but about four or five years ago the State Government approached us and earmarked 100 UHF frequencies in anticipation of going to a UHF solution. So, steps were taken to earmark and secure those frequencies.

804 THE PRESIDING MEMBER: Is anybody else currently lawfully using those frequencies?

MR WILSON: No; essentially they have reserved those frequencies and quarantined them.

805 THE PRESIDING MEMBER: So, it is green field; we will have no lawful interference? Our agencies will rely on the fact that those frequencies will be the only lawful use of them.

MR WILSON: Certainly that is so for the 100 they have secured. At this stage (and Bob my be able to expand on this) we are not aware of the full suite of frequencies they require in addition to the 100.

806 THE PRESIDING MEMBER: There are more? So, 100 was not the ambit claim: it was the basic need?

MR WILSON: They have secured 100. I am signalling that I am not sure of how many additional frequencies they require for their solution. I am conscious that, for example, Telstra has secured a range of additional frequencies, but at this point we are not privy to know what Telstra will utilise those frequencies for. It could well be in support of this program or it may be something else.

MR PHOENIX: We have looked at the possibility of the State Government network needing more frequencies than the 100 and have effectively a strategy for dealing with that if that is the case. What you have to say, however, is that that is assuming some application from them happens in the short term; in several years' time that situation may be different. So, whilst it is true to say the 100 channels are actually licensed so they are the State's right now, we believe we could find additional channels if that is the requirement of the system.

807 THE PRESIDING MEMBER: So, we are not making an investment in some commodity or product which simply cannot stick? We are not trying to paint water through this system, for instance; we are not using frequencies which are not available or which cannot be made available? We are safe in that the equipment we are buying will enable us to do our job using the frequencies that have been reserved to date and that, if we need them, any additional frequencies will come from whatever frequencies Telstra is earmarking currently?

MR PHOENIX: What I should say is that we have never yet seen in an application a concrete picture of what the system will be. Whilst we assume that the frequencies we have in mind will be suitable, until we know the detail, that may or may not be the case. For example, the 100 channels would be suitable for analogue use; there is no question of that. Without knowing what might be proposed, we can only speculate about whether the digital transmissions, for example, might need wider bandwidth frequencies. I am saying that, until we get a picture of what the actual project is, we will not know; nevertheless, we are confident that we could find frequencies.

808 MS STEVENS: I was interested to hear Mr Bouwneester's comments about the New South Wales experience with the Astro Smartzone system, and that Motorola was unaware of the problems. The committee has received submissions about a number of problems with the system in New South Wales, including computer prioritisation of calls, some calls dropping out, loss of coordination with other police forces, and large areas of the State not being covered. They were the sorts of issues we heard about, but Motorola said it had been unaware of them. Have you become aware of those problems at all?

MR WILSON: That is outside the scope of our interests; that is an operational issue. Our strict business is frequency management and allocation of frequencies. How the system works or does not work is of no interest to us and, frankly, we are not in a position to comment on it.

809 MR WILLIAMS: We have been told that the Australian Communications Authority has not `type approved' products which will work on other digital technologies (I am not sure what `type approved' means, but you might tell us), and also that no terminal has been approved on any of the other technologies such as Tetra. We have also been informed that it has not made any frequency allocation for the Tetra solutions. What does all that mean, in light of what we have just heard from Mr Phoenix?

MR WILSON: In regard to the type testing of equipment, there is a requirement for a new product coming onto the market to meet certain technical standards. Before it is released it is sent to a laboratory and put through a series of appropriate standard tests. If it passes that it is type approved and can then be mass produced and sold.

810 MR WILLIAMS: With regard to the frequencies being allocated, Tetra was one example solution, but there are other digital technologies. We have heard about APCO Project 25 and Tetra, and different radio network solutions. Is Astro Smartzone the only one of those technologies from your point of view to have been approved and available for use in Australia?

MR PHOENIX: I am not sure of the answer to that, except to say that in a sense our business is technology neutral, and if people approach us to find frequencies for a particular use then that is what we will do.

811 THE PRESIDING MEMBER: It is a matter of your fitting the transistors. It does not matter what the logo is on the outside of the case of the equipment: it is the transistor inside it, or whatever you use?

MR PHOENIX: The spectrum is available and the channel and widths are sufficient for the application. For example, Tetra in Europe initially started off in a frequency range which is not available in Australia for that sort of purpose. To my knowledge, to this time no-one has come to us and said, `If you can't give us that, we want to put it somewhere else.' Ultimately, if the spectrum is available and someone has an application, we do our best to fit that in. Obviously, that may take some time.

812 MR WILLIAMS: So, at this stage is Astro Smartzone the only technology you have been approached about in Australia?

MR PHOENIX: I could not say that.

813 MR WILLIAMS: In the seven year contract which you are contemplating, how long will the roll-out be? We have been given evidence that we can expect a life span of at least seven years, but that could be 10 or 15 years or even longer. If the roll-out takes five years, surely the last part of the technology that is rolled out will have a much shorter life span if the total is only 10 years?

MR BOUWNEESTER: I suppose the roll-out of the network is not something on which we can provide an answer, because the exact roll-out plans are very much between the State and the prime contractor. It is worth noting that in New South Wales when they started to deploy the network it was a particular version and of a particular functionality. They have since expanded that network from an initial nine sites up to 60 and through that upgraded the technology as they were going. So, wherever possible and practical and wherever it made economic sense for them, they have got to a situation that the sites and so on they are putting in now is effectively the latest technology available today, not the technology that was delivered 10 years ago.

814 MS STEVENS: With what other systems and equipment is the Motorola equipment compatible? I am concerned we could be locked into buying products only from Motorola as a consequence of the contract.

MR BOUWNEESTER: To answer that question, first, the equipment and the network can be interconnected to other networks through various ways for intercommunications. If you are more specifically talking about multiple subscribers from different manufacturers on the network, the Astro Smartzone technology at the moment has other manufacturers who will support it.

The technology is also based on APCO. APCO (Association of Public Safety Communications Officials International) is a US based public safety user group that says, `Here are the functional requirements we need for a system to be suitable for use in police, fire and ambulance.' They have been the group that has been defining a digital standard known as Project 25. A number of manufacturers around the world have signed up to provide subscribers compliant to the APCO standard. We are in discussions with some of those at the moment about supporting the Astro Smartzone technology as well.

815 MS STEVENS: You are saying that we will not be locked into Motorola and that there will be a range of other manufacturers of products.

MR BOUWNEESTER: Yes.

816 THE PRESIDING MEMBER: Is it like buying a Ford but then you can buy Bridgestone, Dunlop or Michelin tyres to put on it.

MR BOUWNEESTER: Yes.

817 MS THOMPSON: My questions are directed to Mr Wilson and Mr Phoenix. We have been told one of the main reasons for having to introduce a new radio network is, because of the reforms in the communications industry and the allocation of band widths, the old frequencies used by several agencies, particularly the emergency services, are no longer secure to them and that they might find somebody else is the prime user of that band width. I am trying to understand if this was the only way to go, that we had to go somewhere else. At the time of the reallocation of band widths, would it have been possible for the current South Australian users to be allocated those band widths as the prime user if they had already been using them or was it simply not possible?

MR PHOENIX: The answer is yes. This happened in the early 1990s and, in fact, each area office around Australia had a strategy for dealing with this problem. The State Government was the primary user—primary in the sense of a major user—in what we call VHF high band. As part of our implementation plan of these reforms we had factored in the way in which we would deal with those users and where they might end up in that particular band. So, the answer is yes, it could have happened that way.

I might say that the ACA and its predecessors had held a view over time that a State Government network was perhaps a more efficient way of utilising frequencies that are scarce to some degree and that we have certainly held dialogue with them over many years about a State Government system. In essence, our responsibility is to find frequencies for any purpose as best we can. We do not care what the solution is. When the State Government indicated, first, a mix of VHF and UHF frequencies and then later a UHF solution, it did not matter to us which way it went.

818 MS THOMPSON: Essentially, if I can clarify the picture, when you told Governments these are going to change, `How do you want to cope?', they said, `We will put everybody on a State Government system and you can have the band widths that some of our emergency services are using. We do not worry about those. We want this new band width.' You thought, `Good, that is the best way to go.'

MR PHOENIX: If they stayed in the band in which the majority of them are presently, they had to comply with this band plan which is a statutory rule as a law of the Commonwealth. That divided the frequency band up into uses in the sense of whether they would be for transmitting or receiving and, also, since one of the principle purposes of this was to increase what we call the productivity of that band by narrowing the channel widths and thereby increasing the number of channels, they also had to change to those narrower band widths. That was specified in a geographic area around capital cities, primarily because that is where the majority of users were, but what is fairly obvious is that with the State

Government, where networks are in the cities but extend into the country, clearly if they were going to change the city end of things they would also have to do the country ones in the long term.

819 THE PRESIDING MEMBER: But you have accommodated that.

MR PHOENIX: No. Because we have worked on the assumption, at least in recent times, this will be a UHF solution. We have negotiated a situation where existing services can stay there in this secondary capacity until they migrate to the new system.

820 THE PRESIDING MEMBER: It is in the context of the present outfit you are making that remark.

MR PHOENIX: Yes.

821 MS THOMPSON: The fact that you decided the band widths had to be changed, that meant things had to change, or is it the State Government's response to your decision that has meant that it is much easier to go to a new system?

MR PHOENIX: If that was the case, that was their decision.

822 MS THOMPSON: It is their decision.

MR PHOENIX: But I might add, a practical decision to this situation in which all radio users of that band found themselves. Potentially they would have to buy new equipment and infrastructure to meet this band plan.

823 MR SCALZI: I have been listening to this evidence, but would it be fair to say that when comparing systems (which we are trying to do), it is similar to Beta or VHF or Super 8: you can find attributes of any system but if you have a VHF library there is no point in getting Beta or Super 8 which are limited. You assure us that the system we have is the most flexible for our library of users and that the flexibility is between analog and digital and the secondary agencies. This goes back to the early 1990s when Governments on both sides of politics were heading down to Astro Smartzone. That is my assessment.

MR CRYER: Most flexible and most cost effective.

824 THE PRESIDING MEMBER: We have been told the Department of Defence is currently sitting on some frequencies which it does not need and which it has never used and that they would be extremely useful if they were available for State Government agency users, perhaps nationally, so we do not run into the railway gauge problem we have had for many years. Because it is our purpose and responsibility to make recommendations that are in the

public interest, is it possible for us to conclude that the State Governments should ask the Commonwealth to require the Department of Defence to vacate those frequencies not currently used which would enable communications between similar agencies across State borders more efficiently than is possible at present with the allocation of frequencies that are currently occupied by the Department of Defence?

MR PHOENIX: I would see nothing wrong with the State Government asking. I am not familiar with the particular frequency band in question.

825 THE PRESIDING MEMBER: I cannot recall which they are, but they are in the evidence. We will revisit that. Would you all be willing to cooperate with us if we write a letter requiring further information about any aspect of the matter we have discussed this morning to help us come to a conclusion as quickly as possible?

MR CRYER: It is in our mutual interest.

826 THE PRESIDING MEMBER: It would have the same consequence and protection as the evidence taken in the committee. In other words, do not mislead us. It will get you into hot water—not necessarily from us but from somebody down the track. Equally, we would be grateful if the information is frank and accurate and it will not therefore cause you any angst. In the event it did, it would be somebody doing so in contempt of Parliament. You would have that umbrella to cover you. That being so, thank you for your cooperation and answering the questions we put to you.

THE WITNESSES WITHDREW