



HOUSE OF ASSEMBLY

PUBLIC WORKS COMMITTEE

GOVERNMENT RADIO NETWORK

Old Parliament House, Adelaide

Wednesday 3 February 1999 at 10.20 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:

GRAHAM FOREMAN, Chief Executive Officer, PETER FOWLER, Executive Director, Government Radio Network Contract, and ALAN CUNNINGHAM, Lead Negotiator, Government Radio Network Contract, all of Department of Administrative and Information Services, GPO Box 1484, Adelaide 5001, called and examined;

1 THE PRESIDING MEMBER: Welcome, and thank you for appearing before the Public Works Committee today. Before proceedings begin, I would like to bring the following matters to your attention. Sections 28 and 31 of the Parliamentary Committees Act outline the privileges, immunities and 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. These proceedings are open to the public except when the committee is deliberating on evidence that 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 evidence be received *in camera*, evidence given in this hearing is available to the public.

All evidence presented at this hearing will be recorded by *Hansard* reporting staff and a copy of the transcript will be forwarded to you for correction. Please begin by introducing yourselves, at least by telling us your title for the record and the committee would then like you to summarise your submission and add any further details or facts which may be relevant to the inquiry or note any changes or omissions. We as a committee were distressed to receive this submission so late. Indeed, the opportunity for me to read it did not arise until the early hours of this morning. After you have made your presentation, questions will be asked by members of the committee in order to clarify aspects of the submission, to seek relevant additional information and to enable points to be amplified by you.

Before asking you to begin your evidence I need to put three questions to you. First, as a point of clarification will you tell the committee whether the proposition that you put before us today is exactly the same as the proposal that has been submitted to and approved by Cabinet and, if not, in what explicit way does it differ? Secondly, in the event that the committee recommends in favour of it and that the Government proceeds, are you aware

that you must make a quarterly report to the committee that the work is proceeding according to the approved proposal? Of course, this report must detail any instance where any variations have occurred in either project costs, target time frames or design features. Thirdly, the committee will also require a statement advising us at least eight weeks in advance of when the work is to be commissioned, dedicated, handed over or, in this place, sung in, I suppose, in some form or other. Do you have any questions about anything I have said?

MR FOREMAN: No.

2 THE PRESIDING MEMBER: Then could you please begin in the manner in which I have asked, that is, by introducing yourselves and then telling the committee the answers to those three questions.

MR FOREMAN: I am the Chief Executive Officer of the Department of Administrative and Information Services.

MR FOWLER: I am the Executive Director for the Government Radio Network which is part of the Department of Administrative and Information Services.

MR FOREMAN: Mr Peter Fowler heads a unit which is part of our department.

MR CUNNINGHAM: I am the Lead Negotiator for the Government Radio Network Contract.

MR FOREMAN: In relation to the three questions, first, the proposition that we will be submitting today is precisely the same as that which has been considered and approved by Cabinet for submission to this committee. I am aware of the requirement for quarterly reports to the committee and they will be made. We will ensure that a statement is provided to the committee eight weeks in advance of when work is to be commissioned.

3 THE PRESIDING MEMBER: Will you begin your evidence?

MR FOREMAN: I would like to run through a brief summary of the proposition of the Government Radio Network Contract. We have provided copies of our presentation for committee members. The first slide deals with the situation as it applies today with our agencies. We have 17 agencies using two-way radio and paging. These include all the emergency services agencies and the police. We have 28 separate agency networks. They have different frequencies—UHF and VHF—and different equipment, and the different networks have varying coverage. The Government agencies have 12 000 two-way radios, many of which are old and obsolete and, for those reasons, many are difficult to repair. We have 8 000 pagers and many of them are tone only pagers. We have 400 data terminals and many of the models used are no longer supported by the manufacturer. We have 40 000 to 45 000 users

of these networks including the CFS and SES volunteers and it also includes police rotating on three shifts in vehicles.

There are a number of drivers for the change that the Government Radio Network contract is designed to bring about. The first one is the impact of the Australian Communications Authority and the requirement to vacate VHF bands or, if we do not vacate those bands, to continue to be a secondary service on those bands, and interference problems are increasingly impacting in those areas. Secondly, the Ash Wednesday bushfires of 1983 and the Coroner's report pointing to the need for interagency operability in our systems and the need for that interagency operability remains to this day. Thirdly, in many cases our existing networks and our terminal equipment have exceeded their operational life and do not meet agency requirements. In recent years, minimal investment has occurred in those networks because of the work that has been proceeding in relation to the Government Radio Network, and many of the existing networks and terminal equipment are old and obsolete. The fourth point is that there is a year 2000 problem with the police mobile data network. It has been determined to be non-year 2000 compliant.

4 THE PRESIDING MEMBER: By the way, when was the non-compliant police mobile data network selected and commissioned?

MR FOWLER: It would have been either 1989 or 1990 that that would have been commissioned.

5 THE PRESIDING MEMBER: In about 1989 or 1990?

MR FOWLER: Yes.

6 THE PRESIDING MEMBER: Would you please tell the committee the time at which it was selected, who was responsible for reviewing the available technology at that time and what the anticipated life of the system was according to the recommendation made by the person selecting it when it was proposed?

MR FOREMAN: In relation to the contract scope, first, the objective of the Government Radio Network Contract is to appoint a service provider to design and conduct the network and to operate and maintain it. The contract is to provide those services to the South Australian Government agencies over seven years. Telstra has been selected after a competitive process. AAPT was the unsuccessful bidder. It is anticipated that the network would be rolled out over 3½ years.

7 THE PRESIDING MEMBER: Before we go any further, given that it will be rolled out over 3½ years, what will happen to the police communications in the meantime where, we have been told, they are not year 2000 compliant?

MR FOREMAN: It is the police data network that is in question and I will ask Mr Fowler to explain.

MR FOWLER: As part of the contract with Telstra, we will be implementing the police data network during the first 12 months of the contract. A work-around has already been developed to ensure that the network is operating during that period. So part of the data network that is not year 2000 compliant will be implemented before the year 2000 so that the network component will be operational.

8 THE PRESIDING MEMBER: It will still be functional?

MR FOWLER: It will still be functional.

9 MS STEVENS: And year 2000 compliant?

MR FOWLER: Until the whole network is implemented you could not say that it is year 2000 compliant. I believe the police have made arrangements in relation to the terminal component of the data network such that they have a work-around for that as well. The area at which we have looked is how we ensure that the network, which is the infrastructure, is year 2000 compliant. The terminals are a separate issue and the police are dealing with that.

10 THE PRESIDING MEMBER: Are you saying to the committee that the police mobile data unit will be functional and there will be no dysfunction whatever as a consequence of Y2K?

MR FOWLER: Provided we proceed to implement the GRNC; that is correct.

MR FOREMAN: The network infrastructure is to provide coverage over the populated areas of the State. The coverage is based on the requirements of agencies and covers all major population in settled areas, and no single agency has the extent of coverage today that the Government Radio Network will provide.

11 MS STEVENS: I must say I was surprised to see that you will only have 20 per cent coverage of the State. Why is it only 20 per cent?

12 THE PRESIDING MEMBER: Given that we cover only about 12 per cent at present, if that?

MR FOREMAN: Different networks cover different areas of the State. The map at the back of the submission shows the area of coverage. You will see that it covers the populated areas of the State and some key population centres.

13 MS STEVENS: So it is related to the population centres.

MR FOREMAN: Correct.

14 MR SCALZI: What percentage of the South Australian population does that 20 per cent cover? How does that compare with the haphazard coverage we now have?

MR FOREMAN: I am not able to indicate that. Members will note that quite a few population centres are not covered by the map that is attached to their submissions.

15 MS THOMPSON: How much improvement is there? Given that I do not understand the technology involved, how will the 160 sites perform better than the existing 1 200 sites?

MR FOREMAN: First, the network will provide coverage to every agency that now has a network such that the coverage will extend far beyond that which its present network covers. Secondly, the network will eliminate most black spots or spots that are not covered at present and provide almost complete coverage of them, regardless of total area and difficulty involved.

MR FOWLER: Radio networks tend to evolve. It has only been in recent years that network construction methodology has been applied in the radio communications area. As each individual agency had a need and had funds it tended to locate a transmitter at a site that was available to it at a certain time. Often this meant it was not the optimum site; for example, the local police station, and so on. By looking at this matter in totality we have been able to look at the sites available to the State and to Telstra and, if you like, pick the high ground.

Really, the two components that relate to the coverage of the radio communication network are the amount of power that you can transmit—and that is determined and limited by legislation—and height. If you have high ground, you improve your radio communication. This network aims to select the premium sites for radio communication. As a result of that, numbers of other sites that were considered to be less premium sites will be not required in the network.

16 MS THOMPSON: It has been put to me that for complete coverage the sites will need to be within 200 kilometres of each other; is that correct?

MR FOWLER: I would suggest that the sites generally will be closer than 200 kilometres.

17 MS THOMPSON: In your submission you suggest that a number of the sites are on hilltops and that one of the benefits of the project is the removal of unsightly towers from

hilltops. You have just been saying how advantageous it is to be on a hilltop. How many hilltops are likely to be repatriated?

MR FOWLER: I cannot answer that question until the final design is completed. It is reasonable to say that many of the hilltops are not necessarily optimum hilltops; for example, you could be on one hill and an adjacent hill could be the optimum spot. You could have ETSA on one hilltop, the police on another and the ambulance service on another, all trying to provide coverage of a similar geographic area. This network aims to pick the optimum site and use it for communications for all the organisations.

18 MS THOMPSON: Will ETSA be involved in this?

MR FOWLER: ETSA has indicated it wishes to be part of the GRN.

19 THE PRESIDING MEMBER: Mr Foreman, will you provide for the committee the numbers of people you believe will not be covered in their place of residence by the proposed network we have before us? That will at least enable us to make an assessment. After looking at the map, I think Mr Scalzi's question is legitimate. It seems to me that it involves over 99 per cent of the population. I am surprised that you have not already worked that out.

MR FOREMAN: We would have assumed that, too. We will certainly come back to you with the numbers on that.

20 THE PRESIDING MEMBER: How much of the current population do you cover using the existing forum of radio communication systems which have an upper limit on them? What gives the best coverage and the poorest coverage?

MR FOREMAN: We will do that.

21 MR SCALZI: My concern is not how many communication towers are on hilltops but how the people are serviced. If 80 per cent of people are now serviced and 95 per cent of people will be serviced as a result of the changes, that is a good thing. What happens to the 5 per cent who are not covered? How can they come into the network? We can argue until the cows come home about sites, and so on, but the essential thing is the services. Will the community be serviced?

MR FOREMAN: The network is designed to provide three main services: voice communication, paging and mobile data. I will talk a little about those services in terms of voice. The network will support two-way radios—mobile, portable and fixed controlled console—using Motorola Smartzone and OmniLink digital, and an analog trunk radio network. It will be a mixed mode and will support all types of users.

22 THE PRESIDING MEMBER: Are Omnilink and analog trunk all produced by Motorola?

MR FOREMAN: That is correct.

23 THE PRESIDING MEMBER: Are they produced by other manufacturers of this technology?

MR FOWLER: The net infrastructure is offered only by Motorola.

24 MS STEVENS: I understand that is part not of the voice service but of the overall infrastructure that you are talking about.

MR FOWLER: There is voice network infrastructure, paging network infrastructure and mobile data infrastructure.

25 MS STEVENS: Is there infrastructure in each category?

MR FOWLER: The network infrastructure for the voice component is offered by Motorola only. Digital mobile radios are offered by Motorola only. In Australia analog mobile radios are offered only by Motorola, but we understand that other organisations offer that technology elsewhere in the world.

MR FOREMAN: With paging, alphanumeric messages will be initiated by operator, phone, computer and alarm contacts, and Telstra will deliver this service in partnership with Link. It will have a coverage area the same as that for voice, and paging will experience much improved response times. It will also have the ability to prioritise calls and messages.

26 MR SCALZI: You mentioned improved response; what are we talking about in those improvements?

MR FOREMAN: It is difficult to be precise about that. It depends on the circumstances. However, pager services will now be offered in areas where commercial paging services are not now offered. The emergency services believe that the paging service will enable them to achieve significant improved response times. Currently, response times of up to 20 minutes have been reported.

27 THE PRESIDING MEMBER: How? What is involved in that? Why would it be so?

MR FOREMAN: Because of the efficiency of paging in contacting people to respond compared with present methods of contact.

28 THE PRESIDING MEMBER: You are talking about CFS and ambulance volunteers in rural areas?

MR FOREMAN: People of that kind, yes.

29 THE PRESIDING MEMBER: They will be able to get messages faster than they can receive them at present?

MR FOREMAN: Yes, very much so.

30 THE PRESIDING MEMBER: So thunderstorms and thick smoke will not interfere with them as they do now?

MR FOREMAN: And people will be able to carry pagers with them.

31 THE PRESIDING MEMBER: They can now do that wherever they go across the settled areas of South Australia, but they are useless.

MR FOWLER: There is another difference between the paging services being contemplated and the paging services that are offered by the commercial operators. We have already covered the fact that the services will be greater. They will allow for the prioritisation of a message. At present, if you use a commercial paging service and it is busy, you could lose up to five minutes from the time the call is logged with the commercial operator and the time it gets out. This network will allow urgent messages to be prioritised and will guarantee dispatch times that are measured in seconds rather than minutes.

MR FOREMAN: In terms of mobile data, a dedicated network will support high speed data in the metropolitan area, and the voice network will support a lower speed data service in the country. This is mainly to meet the requirements of emergency services and police, and it is an infrastructure that a computer aided dispatch system would use. These services—that is, voice, paging and mobile data—will be supported by a comprehensive and ongoing training program, and the Department of Administrative and Information Services will manage efficient, reliable service provision and ensure the network maintains pace with technological advances.

Looking, then, at the time line, the contract is for a seven year period. The second line on the diagram shows the roll-out covering the five business regions at six monthly intervals. The contracted roll-out is over the 3½ year period. It covers the five business regions at six monthly intervals, and that 3½ years allows for final acceptance and payment. The operating and maintaining hardware contract operates over a seven year period, and that is shown at the bottom of the diagram. The Government radio network is funded to a fair and reasonable level or some level from the emergency services levy, but the details of the

level of funding from the emergency services levy have not yet been finalised by the justice portfolio. Of course, that contribution towards this network would only be in respect of the emergency services component.

32 THE PRESIDING MEMBER: Is somebody behaving like a dog in a manger?

MR FOREMAN: No. The emergency services levy will be implemented under its own legislation, and the details of how that levy will impact and how much of that levy will be applied to this purpose have yet to be determined. It requires establishing the emergency services component of the cost.

33 THE PRESIDING MEMBER: That has not yet been negotiated between agencies?

MR FOREMAN: That is correct.

34 THE PRESIDING MEMBER: Somehow or other taxpayers in South Australia are going to pick up the tab but through exactly which bucket has not been decided by the bureaucrats?

MR FOREMAN: That is correct. The benefits we would see from the network are, first, increased availability and, secondly, improved communications. There will be wide area seamless roaming. A person operating within an agency would be able to operate within any part of the coverage area and be able to contact people in any other agency.

35 MS THOMPSON: What do you mean by 'operating within an area'? The police at Christies have problems communicating with Sturt. Will that be sorted out? What happens if the Christies police are in Gawler?

MR FOREMAN: It means that all would be able to make contact with each other. A police officer operating a Bordertown would be able to communicate with an emergency services officer at Port Augusta.

36 THE PRESIDING MEMBER: And talk to the chopper ambulance officials en route from Adelaide to wherever?

MR FOREMAN: Yes.

37 THE PRESIDING MEMBER: That is what you mean by 'seamless'?

MR FOREMAN: They are not confined to their agencies or a particular region or coverage. The whole area of coverage is available, and access to all services, which are part of the network, is possible.

38 MS THOMPSON: I understand that now when the police have special task operations for break-ins one of the cost and administration factors that causes a barrier is the setting up of communications because people operate across such wide areas. How will this be affected by the new network?

MR FOWLER: One of the key features of the technology is the ability to reconfigure coverage areas and who can talk to whom. Rather than agencies being on discrete radio frequencies which are their own and which they cannot share with anyone else, there is a pool of frequency shared by all users. By using software within the network people can say, 'I want radio 26 to talk to radio 27,' and it does not matter whether the radio belongs to the police or the SES. It does not matter whether the radio is in Mount Gambier or in Ceduna. The network control centre is able to configure the radios so that they can communicate with one another. The scenario that you describe of the cost associated with setting up a task group to deal with an incident is significantly reduced by technology such as this. This is where training becomes important in the implementation of these type of networks, because we all tend to think about how we have always done things. A paradigm shift is potentially needed as we implement this type of technology because we will have a different way in which we can potentially do things. Training is very critical to ensure that people understand the capabilities of the network and then understand how they can apply the capabilities of the network to their particular operational circumstances. The simple answer is that it will reduce costs.

39 MS THOMPSON: If radio 26 needs to talk to radio 27, will there be a cost of that reconfiguration?

MR FOWLER: If it has to be set up specifically, potentially there is a cost associated with the manpower involved.

40 MS STEVENS: What do you mean by that?

MR FOWLER: Someone has to fill out the form and ring up the control centre and cause it to happen. There is some cost but I am not talking about new crystals.

41 THE PRESIDING MEMBER: These are costs as distinct from charges, and the way in which it is charged between agencies is worked out or not worked out?

MR FOWLER: Part of the transition plan is that each agency will be required to be involved. These are the areas where thought and training has to be put in. You have to think it through.

42 MS STEVENS: Significant training is involved?

MR FOWLER: Yes, to ensure that people use it to their best advantage.

43 MR SCALZI: As you have said that training and education are crucial and as technology is only as good as the people who use it, what efforts are being made so that the training will be adequate to cope with the associated mind shift?

MR FOWLER: We have included in the project scope the concept of training. When we look at the introduction of technology world-wide there is a whole body of evidence of literature indicating that unless you invest in training you do not get the changes. We have made sure we have taken up involving agencies, ensuring that they understand what is required in terms of transitioning, and DAIS will be providing 'train the trainer' for the agencies so that they will be in a position, as part of their normal training regime, to ensure that their operatives are competent in the use of the technology. I would not have you think that this is complicated. You can have as much sophistication in a network as you require to do the job or you can have it operate in the most informal way. If you want someone who is an infrequent user involved, they can have a system involving only the push of a button and the system will work. If you were a police officer involved in a task force, you would be likely to need much more sophisticated communication needing encryption, and the level of training required for the two operatives is different. The level of equipment required for the job is different.

44 THE PRESIDING MEMBER: Even with separate systems, it is an existing cost and it may be more so because there are no economies of scale in the system that we have at present. Is that fair comment?

MR FOWLER: Yes.

45 MR SCALZI: Given that we have a significant number of volunteers associated with these services, you do not envisage any difficulties?

MR FOWLER: No. With adequate training and proper planning and selection of the correct equipment, we will not have difficulties because effectively they will be able to benefit from the network and understand how to operate multiple types of equipment. There will be commonality of equipment across the network, as the Chairperson has mentioned. The training costs in the longer term will probably be reduced.

MR FOREMAN: Under improved communications we have talked a little about the configuring of users in operational groups. Users do not need to remember frequencies, channels or geographic locations. There is a greater availability of channels. There are built-in redundancies giving higher grades of service.

46 MS THOMPSON: Can you explain that?

MR FOREMAN: There is more scope and room to accommodate busy periods.

47 THE PRESIDING MEMBER: If you build in redundancies, how does it give you a higher grade?

MR FOWLER: A higher grade of service relates to a viability of service. It is achieved by ensuring that we have redundancy in the link back, by ensuring that we have emergency power supplies on the site and that we have redundancy in terms of the number of base stations on our sites. In fact, you improve the grade of service measured as a percentage of availability, and the percentage we are talking about is above 99.99 per cent. The outage requirements put to the contractor are extremely stringent and they meet that by having redundancy in the network and the equipment on site.

48 THE PRESIDING MEMBER: Are you saying that they must change the crucial components of hardware by agreement under the terms of the contract to ensure that there are no failures? Is that correct?

MR FOREMAN: The capacity provided is extensive and can cope with all situations.

49 THE PRESIDING MEMBER: You change the light bulb before it starts to cause problems?

MR FOREMAN: Two light bulbs are used.

50 THE PRESIDING MEMBER: So it is a failsafe and a just in case method. Is that the concept? As to redundancy, you mean that every so often you pull the component out and change it over if it is likely to fail beyond that point in time?

MR FOWLER: The aim of the contract is to ensure that a specific grade of service is available. The contractor is available to do what is necessary to ensure that that grade of service is achieved. That will often mean duplication of key network components so that, if one does fail, the network does not fail. If it is less crucial, there will be a preventive maintenance program to deal with that. Again, this will be a significant difference compared to many of our current networks where they have limited redundancy and battery backup for use in power outages and where they have limited routine maintenance programs. We are paying the contractor to do those things and maintain that level of service to the community as a whole.

MR FOREMAN: I refer to improved agency and interagency communications. Agencies will be able to communicate with each other where they cannot do so at the moment. There is the benefit of the compliance with the Australian Communication Authority's spectrum requirements. The move to ultra high frequency avoids the spectrum issues which are impacting in some areas at the moment.

51 THE PRESIDING MEMBER: This means we will not have the rail gauge problems repeated 100 years later?

MR FOREMAN: And it will avoid the situation where there could be interference on our lines and our being treated as a secondary user. It would be an unsatisfactory situation for an emergency services operation to be treated as a secondary user.

52 MS STEVENS: If you are treated as a secondary user, what does that mean?

MR FOREMAN: It means that another user using the line has priority over you.

53 MS THOMPSON: When has that happened that it has mattered?

MR FOWLER: July last year. Many of our emergency services organisations are secondary users.

54 MS THOMPSON: Why is that?

MR FOREMAN: One of the original reasons for commencing the idea of a Government radio network was the fact that this legislation was passed at a Commonwealth level to make these changes to the spectrum arrangements.

55 THE PRESIDING MEMBER: That means that the existing users are secondary users of those networks?

MR FOREMAN: Yes.

56 MS THOMPSON: If the legislation was passed in the early 1990s and the contract was signed for Motorola, why are we only now starting to implement the system and getting into a situation where we have important services being secondary users? Why was it not fixed up before July last year?

MR FOWLER: The original concept for this network commenced back in the late 1980s and it has been going on for some time. There was a necessity to call tenders for the provision of the design, and construction, maintenance and operation of the network, and that process has been going on since Cabinet approved our moving in that direction in late 1996 or early 1997.

MR FOREMAN: The next point is the faster and more accurate responses to emergencies, quicker dispatch and improved control of incidents.

57 THE PRESIDING MEMBER: Does that mean the system will allow us to distinguish between Inglewood in different States? Grid reference as an inherent part of an approach will ensure that no conflicts are arising between one party giving information and the other party receiving it.

MR FOREMAN: And improved control in terms of coordination between the agencies dealing with the incident as to which agencies are playing what role, who needs to go where and when. There will be common equipment across Government that picks up the point you are making about training and much more efficiency through training and individuals being able to know and understand the equipment, regardless of whether they are working in different agencies, and that can apply to volunteers as well. There will be better coordination and asset management of the system as a whole. The next benefit is the greater reliability and availability of services, improved privacy and security through trunking technologies through the digital facility and through encryption. It will be more difficult to scan and there will be reduced duplication.

I now refer to how the network is set up. There will be a network operations central centre with three separate networks, a voice network, a paging network and a mobile data network, and they will have a common backbone and site infrastructure so the communication from the control centre out to the points of presence will be through a common backbone and site infrastructure for all networks. Telstra will design, construct, operate and maintain the system and the State will own the infrastructure and networks. The status at the moment is that the negotiations with Telstra as the radio network service provider have been completed. The contract is yet to be signed. Cabinet approval was obtained on Monday that is, 1 February. Agencies have commenced transition planning and are preparing schedules to migrate to the system. I need to correct a table in the submission on page 17 and I have copies to distribute. I apologise for the inclusion of an incorrect table.

58 THE PRESIDING MEMBER: Do Messrs Fowler or Cunningham have anything they wish to add?

MR FOWLER: No.

MR CUNNINGHAM: No.

59 THE PRESIDING MEMBER: The burning question on this whole matter is, 'How did we choose Astro SmartZone?' Who chose that technology? Studies by Amos Aked and Swift and Gibson Quai and Associates have endorsed the use of Astro SmartZone. Is it the technology most suitable for the requirements of the State and the most effective method of managing the States needs? Who choose Astro SmartZone, on what authority and against what evaluation at the time?

MR FOREMAN: I was not involved in the project back then.

60 THE PRESIDING MEMBER: Who was?

MR FOREMAN: In July 1993 Amos Aked and Swift provided advice that Astro SmartZone was the technology.

61 THE PRESIDING MEMBER: You said they endorsed the use. I want to know who chose it and what other technologies are available and were assessed by the person who made the choice.

MR FOREMAN: My understanding is that that consulting company recommended at that stage Astro SmartZone.

62 THE PRESIDING MEMBER: I know you are not trying to obfuscate. I want to know who choose Astro SmartZone. If you do not know that, we might as well finish now. I have to find out. Everything else, it seems, from the short time I have had to look at this, has been according to Hoyle, to use a simple vernacular expression, but I have no evidence whatever as to whether Astro SmartZone is one of a group of technologies that could have delivered that system we now have set out before us to meet all our needs and whether it is the only one. Secondly, I do not know who chose it and on what authority that choice was made. Thirdly, I do not know what skills and expertise the person or group of people so authorised to choose it had when they made the choice and what was involved in the process. We are going nowhere unless we can answer those three questions. Where does it come from?

MR FOREMAN: I can only indicate that the specialist consultants have advised over a period of time—the earliest I am aware of was in 1993—that it was the preferred technology for the purposes that we had and that those consultants had and would have looked at the range of available technology.

63 THE PRESIDING MEMBER: Who asked the consultants to look at it?

MR FOREMAN: They would have been engaged by the agency of Government managing the project.

64 THE PRESIDING MEMBER: Name the agency.

MR FOREMAN: I believe the Department of the Premier and Cabinet at the time.

65 MR SCALZI: Early 1993?

MR FOREMAN: July 1993, so those consultants would have been engaged at an earlier time.

66 THE PRESIDING MEMBER: The committee requires a copy of the advice to Government at the time. When will that be delivered?

MR FOREMAN: I cannot say when I can get it.

67 THE PRESIDING MEMBER: If lives did not depend on it and if it was not part of the year 2000 bug problem, my personal inclination would have been to come back and talk to us in May, my having got the chance to read the submission only a few hours ago, but because of the urgency of it we are considering it this morning. We need that information to enable us to sign off that the public interest has been served all the way along. We need to be able to assess that and determine if indeed it was served properly by a process that we consider appropriate and that is our duty. It does not reflect on you or anyone else necessarily. We have a duty, established in law, and there is no way that this committee under my chairmanship will again be the subject of such disparaging remarks as it was in the Auditor-General's Report of conduct relating to affairs in 1996-97. There is that duty which we have and I intend that we should indeed discharge it, and every other member of this committee holds the same view. We need to be satisfied that all the available technology was assessed, that the best at that time was selected and that Astro SmartZone is the one upon which we have based all decisions subsequently.

MR FOREMAN: As late as January of last month we had advice from Gibson Quai and Associates, our specialist consultants on the technology in recent times, that the Astro SmartZone OmniLink is the most suitable technology for use if the Government radio network is to commence during 1999. They gave that specific advice last month.

68 THE PRESIDING MEMBER: Could we have a copy of that please at the same time. Is Motorola the only firm in the world that can sell that to us?

MR FOWLER: The answer is 'Yes.'

69 THE PRESIDING MEMBER: Then evidence of the fact that that is so will need to be provided to the committee and not just that it was preferred for some reason but that it is a fact that Motorola have the exclusive marketing rights for Astro SmartZone. If that is not the case, can we have evidence of the reason why Motorola was chosen—it needs to be explained by providing the documentary evidence that confirms that point.

70 MR SCALZI: You said that Astro SmartZone was selected in 1993, and as late as January this year it was confirmed that this was still the best option for South Australia.

MR FOREMAN: For our purpose, if we are going ahead this year.

71 MR SCALZI: Given that that was assessed in January this year you are telling us that there has been continuous monitoring since that initial decision to go down that path?

MR FOREMAN: We have had advice for the period from 1993 through to that most recent advice which has consistently indicated that that is the technology to pursue for this purpose.

72 MR SCALZI: Given the rapid changes in technology one would have to come to that conclusion?

MR FOREMAN: Correct.

73 MS STEVENS: I would like to start by saying that I have been on the Public Works Committee for a number of years, and the project that has cost the most amount of money in all that time I think was \$121 million for the upgrade of the Royal Adelaide Hospital. I am just staggered at how much this costs; \$247 million is about the cost of five medium sized hospitals. I do not doubt the need for the integrated system, and all those benefits, bearing in mind the need for training and a paradigm shift, and all the other things you talked about; however, I am still staggered, first of all, at how much these things cost, and also I am really concerned that there has been the blow-out. So I would like to know, first, why it costs so much. Why does it cost hundreds of millions of dollars to do this? The second point is that Parliament was told that it would cost between \$150 and \$200 million. We found out this morning from a media report that it is now \$247 million. Why has there been a blow-out? What precisely has caused this, and can you tell us specifically where this extra money is going?

MR FOREMAN: First, I imagine that many of the projects that come to the Public Works Committee focus on the capital cost. The figure that is used here is to cover the design, the construction, the building and the maintenance for a seven year period. So the figure is covering the operating costs for a seven year period, and I doubt that, for example, the Royal Adelaide Hospital project would include the operating costs together with the capital costs; so it may not be a case of comparing like with like in that sense.

74 THE PRESIDING MEMBER: So it is in the nature of the contract. It is not just bricks and mortar but keeping it painted in the meantime?

MR FOREMAN: Yes, and making sure the thing works and provides a certain level of service for the whole of the period of seven years. In terms of the costs, I am aware that the figure reported to Parliament, as recently as last August, was \$150 million to \$200 million. There have been a number of components to take into account since then. Firstly, the costs had been focused on the costs of the contract. This costing is an attempt to encompass all costs, including some costs of Government operations which occur now. There are, for example, the leasing of sites, which the Government owns now and which will need to

be used in this. We have taken those costs into account to get full costs. That, for example, is a figure of \$5.6 million. There has been a need to put in place a foreign exchange hedge, which has had a cost of almost \$1 million. There are training costs that occur in Government now. There are installation and maintenance of terminal equipment costs that occur in Government now. Those two items amount to about \$13 million.

There will need to be a billing system within Government for the cost of the system, and that billing system itself over the seven year period is estimated to cost \$2 million. So, first, that is a range of costs which were not taken into account previously because of the focus on the cost of the contract to build, own and construct. A foreign exchange impact has occurred since those last figures were mentioned. That amounts to something in the order of \$15 million. That foreign exchange hedge was taken out as soon as it was practical to do so, but over the period from when one figure had been mentioned as an estimate to the figure that is now used there has been foreign exchange variation which will impact on both the contract for equipment and on terminal equipment.

75 THE PRESIDING MEMBER: So what was the dollar exchange US/Australian at the time the initial estimates were made?

MR CUNNINGHAM: There were a number of exchange rates used, in the order of .71 to .72 to .73 for the US.

76 THE PRESIDING MEMBER: Something of that order, and now .63.

MR CUNNINGHAM: Now that we have hedged we must recover some of that foreign exchange allowance which we have to make. But we have costed on the worse case we are aware of. We are hedged now so it will be no worse than .583. It may improve on that.

77 THE PRESIDING MEMBER: By as much as 6.2 per cent?

MR CUNNINGHAM: Yes.

78 THE PRESIDING MEMBER: On \$247 million that is a fair bit of money.

MR CUNNINGHAM: It is not on the whole now—only on the hardware that has to come in.

79 THE PRESIDING MEMBER: And what was that in value? You may want to take that on notice, Mr Cunningham.

MR CUNNINGHAM: I will take that question on notice.

80 THE PRESIDING MEMBER: The fact that you have hedged the exchange rate heartens me and reduces the level of my anxiety a great deal.

MR FOREMAN: Our present hedge expires at the end of March, at which time we would need to look at another hedge if the contract is not signed. Once the contract is signed then it is dealt with in a contract. In the period between August and now there has been some better definition of the actual agency requirements, which has been a basis of the project all along. But things change in agencies, and that better definition has led to additional costs of \$4 million. The \$150 million to \$200 million figure was based on estimates around the best and final offer process that was undertaken following a request for proposal. In the best and final offer process the competitive process led to the bidders tightening, sharpening their pencil, I guess, and looking at what they could tighten.

In relation to what we have negotiated with them, there have been some aspects of the best and final offer which we believe we could not live with in terms of the system requirements. So there has been some readjustment to the scope to pick up those things. That is a \$5 million component, and there has been the inclusion of a contingency figure of \$22.5 million to cover the uncertainties that can be expected in a project of this kind and size. Obviously, that money would only be spent if it had to be spent; but in planning a project of this size some contingency provision is needed. That figure is close to \$70 million.

81 MS STEVENS: I am looking at the article that was in the *Advertiser* this morning. Perhaps those figures are not correct and you might like to correct them, but it was reported that originally it would cost \$160 million, and that there was a \$60 million blow-out and then \$27.35 million this week. So we have \$87 million. Are the figures in the paper incorrect or have you not told us all the components? It says that it is estimated that Telstra would be paid \$160.3 million.

MR FOREMAN: The costs included in the \$247 million do not only include the cost of a service from Telstra. A range of Government costs are included, so those figures are not strictly comparable with what I was indicating to you. That figure is a contract figure for the Telstra component. There are also State Government costs in having a system.

82 MR SCALZI: You are telling us, Mr Foreman, that the purchasing price and the maintenance of the system are two different things, and were not necessarily included in the initial cost?

MR FOREMAN: There is a contract to design, construct and operate, but the State has costs as well.

83 MR SCALZI: So that did not include the State costs?

MR FOREMAN: Not the \$160 million mentioned in the press release.

84 MR SCALZI: So the initial part has not blown out to that extent?

MR FOREMAN: No.

85 THE PRESIDING MEMBER: What is the point of the press release? It has a lot of confusing bumph in it, frankly. I don't know what the hell it is there for. It doesn't enable anyone to understand anything.

MR FOREMAN: It is not something I can comment on.

86 THE PRESIDING MEMBER: It was not prepared by the Department of Administrative and Information Services?

MR FOREMAN: No.

87 MS STEVENS: Contingencies, \$22.5 million: I actually heard the Minister say on radio this morning that that was 5 per cent of the total. It is not 5 per cent but more like 10 per cent.

MR FOREMAN: Yes, closer to 10.

88 MS STEVENS: It is somewhat high. A figure of 10 per cent seems to be a high percentage for contingencies?

MR FOREMAN: I think people familiar with radio networks would argue that it is a low figure, but of course the contract covers a big component of it and, because the contract delivers quite a deal of certainty at a lower figure than would normally be considered for a radio network, the figure chosen is around 10 per cent.

89 MS STEVENS: Can I finally ask: why does it cost so much? What will we see? Why are we looking at \$250 million for this? It is a huge amount of money.

MR FOREMAN: What we will get are the things I ran through earlier, including a network that will provide services to a large range of Government agencies at a higher level than they receive presently. If it was not provided, there would be a need to replace almost all those networks, in any case. That was part of the original justification for having one comprehensive network; that is, the spectrum issues, obsolescence issues and efficiency issues and, in particular, the Ash Wednesday Coroner's report about the need for interoperability—to have one comprehensive network.

90 MS STEVENS: I understand all that. However, it seems a huge amount of money.

MR FOREMAN: In part, the answer is that the options would also be, first, very expensive and, secondly, would leave the Government or the community exposed by not having an efficient network.

91 THE PRESIDING MEMBER: What you are saying is: 'We will save more lives, we will reduce the seriousness of the injuries from which people suffer and from which they are able to recover as a consequence of quicker response times. We will catch more criminals more quickly with fewer police involved. There will be clearer communications between people of different agencies who are trying to deliver a service to the community because of the effectiveness with which a single network of communications can deliver those exchanges of communication essential to get that done.'

MR FOREMAN: That is certainly the case.

92 THE PRESIDING MEMBER: Nowhere in the submission do you begin to quantify the savings. I cannot even begin to calculate, when I get the chance—late probably on Saturday night when I cannot sleep or something—the net present value calculation. I do not know what the savings are. No-one has attempted to establish them in direct form, leave alone those that will occur that are perhaps intangible. We ought to be able to quantify those benefits, but they are not quantified in this submission. I am disappointed that you (or your officers) were unable to do that or did not think it important enough to do it and, what is more, that overall Government did not require the agencies that will be the end users to quantify the savings, and I think that that should have happened. I think that departmental heads who are trying to protect their territory, in terms of revenue they receive from Treasury every year, ought to put that aside in the public interest and state straight out what it is that it is costing them now and what they will save in consequence of doing so. They should have been required to give that information to you so that you could put it before this committee and enable the public to be satisfied that it is a very sound investment that has a very high rate of return to them not only in terms of the outcomes of the kind about which I have just spoken—that is, we can all feel safe and more secure now—but also that once we implement this in dollar cost terms each year we will be better off. If you and other Government agencies do not understand that, then I have to tell you and other Government agency heads that they have a bit to learn about what the words 'public service' mean when they accept the job as servants of the public being paid at taxpayers' expense, and whilst you did not ask for a homily you have got one.

MR FOREMAN: One comment I would make is that one of the difficulties in that exercise is that the alternative involved is really not regarded as viable, which is to upgrade or rebuild, or for each agency to consider this issue on its own—

93 MS STEVENS: We need to have that quantified.

MR FOREMAN: —and they would need to do that. However, it would not deliver what the community needs, which, for example, is the interoperability between systems. The course of having a Government radio network is one that has been in train for quite some time, and any savings would need to be considered against what they would otherwise have done, which has not been considered a viable option.

94 THE PRESIDING MEMBER: Or may not be, indeed, but, if this technology did not exist and could not be bought, then they would be compelled to repair what they are using believing that to be state of the art that needed to be their continued means of communicating, and so that is what it will cost them. They jolly well ought to have been willing to share that information with the taxpaying public, the vast majority of the punters who have been for too long treated like mushrooms.

MR FOREMAN: One of the difficulties they would have had in that is the cost to each agency—even if you were to concede that interoperability was not a factor and that they would each proceed—and the amount of work involved. For example, they would all have needed technical advice and so on to determine what would have been suitable and how they would have proceeded. A decision was taken by Government very early on to proceed with this and to look at the one network for a whole series of reasons, including the spectrum issues and other issues as well. It would be very difficult and costly for an individual agency to go through that process.

95 MS STEVENS: Finally, on the cost blow-out, is any of that extra money that you listed in those categories going to either Telstra or Motorola?

MR FOREMAN: Clearly, the foreign exchange component goes to the suppliers of that equipment, but whether they get a benefit from that—

96 THE PRESIDING MEMBER: No windfall profit because their costs are incurred in the currency with which we have to make the exchange. Presumably, that currency would be in American dollars and ours in Australian dollars.

MR FOREMAN: There would be a figure of the order of \$500 000, in terms of transition services, which would go to Telstra. That had not been factored in, which is part of the amount that I have mentioned. The rest are within Government and relate to costs that were not part of the 'contract' costs in trying to ensure that we have all the costs entailed in the costing and also the other points I have mentioned about agency requirements, the scope from the best and final offer process and the contingency provision.

97 THE PRESIDING MEMBER: I guess it is fair to say that no escalation of charge has been made by those commercial interests to which Ms Stevens referred; it is all a consequence of the exchange rate and matters such as that. They have not simply submitted one price and got the job and then said, 'We have to charge you more.'

MR FOREMAN: Definitely not, but the figure of \$150 to \$200 million was mentioned before the negotiation process had been finalised and that was pointed out at that time, that is, they were not the finalised costs of the contract.

98 MR WILLIAMS: I also did not have the opportunity to read the submission because I only received my copy on my desk this morning. In one way it is rather fortunate that, in my opinion, the submission is rather deficient because, if it had contained sufficient information, I would not have had the opportunity of understanding the gist of what has occurred this morning. It staggers me, as it does other members, that the Government made a decision at Cabinet on Monday last to spend about \$250 billion because it was told that other options are not viable without having any figures to suggest why they are not viable. I do not think too many businesses in the private sector would accept the statement from their executive officer at a board room level that other options are not viable when they were spending hundreds of thousands of dollars, let alone hundreds of millions of dollars.

In your submission on page 15 you refer to the 'do nothing' option. The 'do nothing' option is a funny term, and it involves repairing and maintaining the existing network. You have given evidence, in a fleeting manner, that that is unviable; that should be quantified. Certainly, given the amount of money taxpayers have been asked to expend here, it would be difficult for me to go back to my electorate and tell the people whom I represent that the State Government is spending this sort of money with the paucity of information regarding alternative options. I accept that this is the best possible technology available in the world today and that it is a system we need. However, on the information provided to us today, I certainly cannot accept that this is the only option and that other options are unviable as I have no evidence that they have been properly looked at.

As we are talking about a seven year contract, the committee needs to know—and certainly the taxpaying public needs to know—the ongoing replacement and maintenance costs involved in what you referred to as the 'do nothing' option. Are they likely to be a couple of hundred million dollars over the next seven years which would make the option viable? Given that it could provide better technology and infrastructure, and greater benefits to the community at a similar or lower cost, the committee—and, therefore, the tax paying community—has no way of assessing that, so the information that has been brought before us is very deficient.

99 THE PRESIDING MEMBER: The public has a right to know it.

100 MR WILLIAMS: For the life of me I cannot see how the department responsible could go to the Cabinet with a submission that did not contain that sort of information. I cannot see how Cabinet made the decision it apparently made on Monday without that sort of information.

101 THE PRESIDING MEMBER: You do not need to speculate about its comments.

102 MR WILLIAMS: This information could have been available and could have been withheld from the committee, or it may never have been calculated.

MR FOREMAN: In terms of options and so on, clearly Cabinet has taken the course of seeking requests for proposals from suppliers of these services against a specification. Hence there has been a competitive process, and the Government has gone back to the bidders for the best and final offer process to ensure that it has had the most competitive bid that it could get to provide these services. In terms of technology, it has been through a competitive process and then further negotiation to achieve the coverage and specification it wants. I can only reiterate on any other issues that there are quite a number of reasons why the existing 28 networks cannot continue, the spectrum of issues being the capabilities and the requirement for agencies to be able to operate. Hence the justification for having a single Government radio network has been based very heavily on those needs and on getting the best available technology to provide the best services for the South Australian community.

103 MR WILLIAMS: I accept all those things. I survived Ash Wednesday and lost, amongst other things, my home. I know about the radio network and how it fell down in those circumstances. I understand all about the technology involved and the benefits to be derived from that. I am questioning the basic cost benefit analysis. I sincerely hope that better evidence was provided to the Government than was provided to Cabinet, but I am not questioning whether the right decision was made. I would find it difficult to justify to the taxpayers of my electorate spending such an amount of money given the evidence that has been put in front of me. You might have all the figures in the back of your mind or on a piece of paper, and they may have you absolutely convinced that you should proceed in this manner. However, that evidence has not been placed before this committee, and I would find it hard to believe that the committee will be convinced that the right decision has been made. After all, as the Presiding Member has pointed out, that is our role.

MR FOWLER: The three options available are the 'do nothing' option, the installation of a single agency based network or an integrated network. With regard to the 'do nothing' option, the current networks by which the State operates, by and large, have been deemed by Commonwealth legislation to be secondary services. We can do nothing to those networks to make them primary services without replacing them. The law of the land has forced us to look at large scale replacements of our communication system.

104 MR WILLIAMS: I accept that. Surely somebody somewhere has put together some figures as to what the replacement of those individual services would cost.

MR FOWLER: That is another question.

105 MR WILLIAMS: That is the basis of my whole question.

106 THE PRESIDING MEMBER: This committee will not report to Parliament until it has that information and a far more accurate, realistic and relevant working of the cost benefits and the internal rate of return of the investment and of the net present value that comes from it to the people of South Australia. When we get that, we will begin to consider the other evidence.

107 MR WILLIAMS: I do not have a problem with the evidence you have presented to us: it is the evidence that has not been presented to us with which I have a problem.

MR FOWLER: By way of clarification, we accept that we have to do something. However, the question then arises, 'Do you do something on an individual basis or on an integrated basis?'

108 THE PRESIDING MEMBER: You should put some figures on the individual basis, the 28 agencies, one at a time, with the justification of each and why you came down on the integrated solutions.

109 MR WILLIAMS: It is hard for us to go to the Parliament and say, 'This is a quarter of a billion dollar radio network' if we have evidence that an alternative could be to spend \$500 000 for half the service. That is much easier to sell to the taxpayers of South Australia.

MR FOWLER: I did not want to leave committee members with the thought that there was an opportunity not to be doing anything at all unless we want to accept that secondary service situation.

110 MS STEVENS: However, that would be part of the analysis that you would be presenting to us.

MR FOWLER: Yes.

111 MR WILLIAMS: I note in your submission that you talk about integration with interstate agencies and you mention on page 10 the example of the Victorian Country Fire Authority, which is rather relevant, given that the Ngarkat Conservation Park is in my electorate. Can I be assured that this will provide a much better integrated service with interstate agencies, given that fires cross borders? Members will recall a few years ago that a lot of CFS equipment was used to fight fires in the Sydney area. I know there was a problem with the integration of radio equipment on the trucks that went from here to Sydney; it does not just involve the Country Fire Authority in Victoria. Will there be an opportunity to integrate with interstate services?

Unfortunately the States operate a bit like the railroads: there is also no common gauge in radio communication between the States. Queensland uses one protocol, New South Wales uses one and Victoria yet another. We are contemplating having the same as New South Wales, and the Tasmanians use something else again. So there is no standard in Australia.

112 MS STEVENS: In this day and age, why is there no such standard?

MR FOWLER: There are seven major types of standards worldwide in the industry. There is no local standard for radio communications. I guess that is the state of the world. In terms of inter-operability with other States, it will be possible for us, subject to consultation with people in Victoria, to interconnect our network at the network level because the Victorian network extends to the Victorian/South Australian border. There will be coverage by the dispersal of the sites across the border into Victoria. Radio waves do go across the border, so there will be an area of operation of the South Australian network into Victoria. There will be an area of operation of the South Australian network into New South Wales and it will provide some cross-border operations. We then have the use of simplex or direct mode, which would allow individual fire tenders, if they went to New South Wales, to communicate amongst themselves as a unit from their portables to the tender. The New South Wales network is essentially a metropolitan network and I would see a few technical issues in trying to interconnect.

113 THE PRESIDING MEMBER: They are behind us and primitive by comparison.

MR FOWLER: The New South Wales network is similar to the network that we contemplate but the area of coverage that it has is limited to the site from Newcastle to Wollongong. Whether the New South Wales Government has decided to proceed with further investment on its network to extend the coverage of the current GRN, I do not know. Now it covers only the greater metropolitan area.

114 THE PRESIDING MEMBER: It has a Gepps Cross to Noarlunga mentality as well?

MR FOWLER: Yes. To answer the question, properly implemented there will be the opportunity for better cross-border communications but, because we live in a Federation, one organisation uses one system and it is not the same in each State. It is not easy.

115 THE PRESIDING MEMBER: I took some comfort from your statement on page 5 and your answer to the earlier question. You stated:

The New South Wales, Victorian and Tasmanian Governments have integrated networks in place and Queensland and Western Australia are considering this method. In the USA, a number of States have proceeded with

this approach. The UK home office is planning a major network, to be available in 2005, and several European countries have similar plans.

Earlier on the same page you refer to the Astro SmartZone mixed mode solution. I thought you were referring to the Astro SmartZone and I was deriving from those two statements comfort to which I was not entitled. You are now telling me that the police and the CFS in the Ngarkat area, which I share with Mr Williams, in future would not be able to communicate between Victoria and South Australia about that fire in a seamless manner?

MR FOWLER: It will be possible to interconnect the two networks because they go to the border. It will improve the cross-border operations but the Victorian network is purely an analog network.

116 THE PRESIDING MEMBER: That is still a more primitive one still?

MR FOWLER: It is an older network.

117 THE PRESIDING MEMBER: I am talking about the degree of sophistication. I have been told that analog is inferior to digital and this integrated system that is being put before us today. Is that so?

MR FOWLER: Analog technology has a good a proper place in radio communications, as does digital. There is still a considerable difference in the price of the terminal equipment between analog and digital terminals. If needs can be satisfied from the use of an analog terminal, it is considerably cheaper and that would seem the way to go. If you need the functionality of digital, it is a value judgment as to whether or not you are prepared to pay the difference in price of the terminal equipment.

118 MS STEVENS: Are we not turning over to digital? Where does that leave analog?

MR FOWLER: No. The network we are proposing operates both analog and digital. The Victorian system operates only in analog mode and it operates in the NPT13/27, which is analog technology. It is possible to connect the two networks but you will not get the functionality when you do that. When you go through the Victorian network it would not be the same as in the South Australian network because it loses the common denominator.

119 MR WILLIAMS: I can only assume as to the fire ground at Ngarkat that, if the controller happens to be in the Victorian CFS, he cannot talk directly to a South Australian fire appliance but he may be able to go back through the network.

MR FOWLER: Yes, he may be able to go back through the network.

120 MS STEVENS: What does that mean?

MR FOWLER: He could go back through the network. This is part of the transmission plan in terms of how it is organised. It is technically possible to connect the two networks.

121 THE PRESIDING MEMBER: What we are proposing is no worse but is probably better than what we have at the moment.

MR FOWLER: It will be better than what we have at present.

122 MR WILLIAMS: When can we expect the voice and paging part of the network and perhaps data transmission to become obsolete because of satellite and digital phone systems? Could we operate with digital phones rather than using such equipment?

MR FOWLER: We have looked at those questions. It has not been possible for us to find viable technology of that kind at this time. The satellite technology provides for individual to individual communication and a lot of what is needed in our networks is individual to many communications. The second point is the cost factor. It is difficult to predict how far out technology will improve to the extent that costs come down. Clearly the advice we have is looking out four to five years at least. The other point is that the Government radio network would not rule out utilising satellite technology for appropriate purposes that it might provide for in future, particularly in providing better communications in the remote areas of the State and for particular functions within areas covered by the GRN, so it does not rule out utilising that technology where appropriate.

123 THE PRESIDING MEMBER: So these LEOS, the low earth orbit satellites, to be launched during the next five years or thereabouts, will not make the terrestrial hand-held equipment and vehicle-based components irrelevant, or will they? We can switch from towers to satellites.

MR FOWLER: Technology moves forward extremely quickly and anybody who wants to forecast what will happen in seven years from now would be a brave person. In the contract we have ensured that, in those areas where that type of technology may become more relevant in future, we have room to move to that type of technology. In the metropolitan areas the need for one to many and for an all-informed type of communication is extremely critical. None of the communication standards that use the satellites at the moment contemplate provision of that type of service. Within the metropolitan areas, and towns like Mount Gambier, that is not a proposition. In some of the more remote areas the price may become such that you would have to balance off the desirability of having everybody informed or one to many against the cost. At the moment that equation does not add up. There are still areas of technology where satellites will be appropriate in South Australia—certainly

in areas not covered by the GRN satellite technology because it is either that or HF radio and HF radio is probably being overtaken by satellite technology.

124 MS THOMPSON: Everything I am hearing is making me more confused about what options might have been available to the Government in choosing an integrated system or the continuation of individual systems, and it has made me think of the old saying in politics that you should never establish a royal commission unless you know the answer. Similarly, in the Public Service I am aware of a saying that you never engage a consultant unless you know the answer; otherwise you are throwing away your money. I have been interested that each of the answers from Gibson Quai and Associates has been qualified and I am interested in the questions being asked. On page 5 of the submission it states:

Studies by Amos Aked and Swift and Gibson Quai and Associates have endorsed the use of Astro SmartZone (mixed mode solution) as the technology most suitable to provide the mixed analog and digital operation required by the State and the most effective method of managing the State's encrypted voice needs.

On page 12 there is an indication of what the key requirements were, namely, capability; functionality; mixed analogue and digital network; terminal equipment range; and, quantity and terminal equipment compliance. Who determined those key requirements and when?

MR FOREMAN: Those requirements were determined back in 1996, based on a survey of the requirements that each agency had for radio servicing.

125 MS THOMPSON: Was that before or after the State entered into an agreement with Motorola to use Motorola Astro SmartZone and integrated solution for voice radio equipment?

MR FOWLER: A lot of this work was done in the very early 1990s by a team of people domiciled in the Department of the Premier and Cabinet and they surveyed various agencies' needs and made several submissions to Cabinet during that period. I understand that at the end of 1992 Cabinet endorsed the concept of an integrated radio network for the State and work has proceeded since then.

126 THE PRESIDING MEMBER: Will you give us a copy of that minute?

127 MS THOMPSON: Plus a copy of the request to Amos Aked and Swift and Gibson Quai setting out the question asked of them?

MR FOREMAN: We will attempt to do that.

128 THE PRESIDING MEMBER: You will give us a copy of that minute?

MR FOREMAN: We will certainly attempt to do that.

129 THE PRESIDING MEMBER: What do you mean by 'attempt'?

MR FOREMAN: We will search the records to find it.

130 THE PRESIDING MEMBER: Whether it was 1990, 1991, 1992 or 1993 does not matter. If an assessment was made it is fairly important. It is not only in the public interest but it will also be of interest to the public.

131 MS THOMPSON: Will you also confirm the request that went to the consultancy in 1996 and what questions were asked? Earlier today you said that Gibson Quai had confirmed that Astro SmartZone was the only system available if we were to go ahead in 1999. Given that we seem to have taken about 10 years so far, what are the costs and benefits of not going ahead in 1999? We know there is a problem for the police mobile data network and year 2000 compliance, but there may be ways of patching that in the meantime. We are hearing about the new systems becoming available. We know analogue is going out for some purposes. Would there be something difficult and would it be cheaper if we waited until next year?

MR FOREMAN: There may be or there may not be. We have spectrum issues to deal with in our own systems and the question of the inoperability of systems was raised a long time ago by the Coroner after the Ash Wednesday bushfires. How long can one wait, given the risks to the community?

132 MS THOMPSON: The Public Works Committee has been long interested in the promotion of local firms in major projects and the availability of an opportunity to enable growth in local firms because of major Government expenditure. I have been contacted by a constituent and another member of the public, both of whom run construction rigging companies. They are both saying that they have heard (I am not making any accusation but repeating what I am told) that a Victorian firm has been told that it has an 80 per cent chance of getting the contract for the construction and rigging of the relevant towers associated with this project if they relocate in Adelaide. Can you tell us anything about whether there is any reason for that rumour to be out there or anything about the way in which the requirements will be negotiated with Telstra in relation to support of local firms?

MR FOREMAN: I have no knowledge of anything that would lend any weight to that rumour.

MR CUNNINGHAM: I was involved to a large extent in the negotiations with some of the industry development commitments that Telstra has made as part of this contract. We have negotiated with Telstra a sanction that if they fail to purchase a certain amount of the outsourced contracts that they control in South Australian based organisations we will sanction them in their performance of the contract. So I think the word that is out there in the

marketplace is misguided and certainly is not reflected by the contract that we are contemplating with Telstra.

133 THE PRESIDING MEMBER: I am comforted to hear that, Mr Cunningham.

134 MR SCALZI: Mr Foreman, I have no interest in trying to ascertain the maintenance of smoke signals, and I commend the Government, whoever was in power in the 90s, in proceeding down this path. In relation to the competitive process that has taken place of like with like, have we got examples of other places that have installed this system and are we competitive with those installations?

MR FOWLER: Minister Matthew spoke in the House about some costs in relation to this network as contrasted with the State of Florida network and there are a lot of figures there that show that the network in South Australia is cost comparable with that.

135 MR SCALZI: Are we getting value for comparable systems?

MR FOWLER: It would appear so. If we were to compare it with the State of Florida network, for instance, that would be the case.

136 MR SCALZI: Are you telling us that due to Commonwealth legislation we have to move towards an integrated system and that at present, if we do not move towards that system, we are jeopardising safety due to the fact that we have some of our emergency services on secondary systems?

MR FOREMAN: We do not have to integrate for that system, but we do need to change the equipment, so that we move from the spectrum where we become a secondary user. The key requirement for the integration and the interoperability is the need for our different emergency services to be able to deal with each other, as has been highlighted in emergency situations.

137 MR SCALZI: So if we sit on our hands and do nothing we are continuing to jeopardise emergency services?

MR FOREMAN: Certainly.

138 MS THOMPSON: I am interested in the issue of environmental repatriation. You mentioned earlier that we will not need as many hilltops. What is going to happen to the hilltops that we no longer require? Who will be responsible for the costs of removing any surplus existing towers and repatriation of the hilltops?

MR FOWLER: Individual agencies. Some of the hilltop transmission sites will be owned by bodies other than Government, but Government may well be the principal user of the site, with the site run as a commercial entity. If the Government no longer requires it I presume that the other entity involved would need to make some sort of decision as to whether it continues to operate at that site. Other sites are owned or controlled by Government in which case it would be the individual agency's responsibility to ensure that the equipment was properly decommissioned from that site. I do not know about making good and so forth. I do not know what the legislation is in relation to that. One would presume that you would not want to leave things like masts and towers there, because at some point in time they would become unsafe. So part of the decommissioning would involve the removal of those items.

139 MS THOMPSON: Could you please provide us with information about what is going to happen there, and whether that is going to be a burden on agencies? For example, would Community Welfare suddenly have to deplete its budget in order to decommission a mast?

MR FOWLER: Each of the agencies has given us an indicative cost for decommissioning their networks. It is difficult to be fully specific at this time, because obviously we do not know the time frames and so forth. But we do have indicative costs and we can provide that.

140 MS THOMPSON: On page 11 there is reference to the fact that the proposed GRN operations control centre is expected to be located within the State Administration Centre, which is in Victoria Square. The reason I comment on this is because I was at bit alarmed that we recently heard the Minister for Emergency Services stating that it was necessary to move the Fire Brigade's communications control centre from Wakefield Street because it lies on a major earthquake fault line, that it could be subject to terrorist attack and that it was on the same power grid as the police. So I am interested in that aspect.

MR FOWLER: The selection of that site involved the old offices from the Emergency Services and the State Disaster Committee, and it is a Telstra responsibility to ensure that the site is suitable for their purposes. In relation to security there are requirements as to how the network control centre is to be secured, and that is a very valid point. In relation to power, the power for the network control centre is not only provided by the normal power network but there are back-up generators, plus batteries as well. So there is a whole range of fall-back options in relation to supply of power to the network. I am unaware of the situation in relation to Wakefield Street.

141 MS STEVENS: I noticed in your submission that you talk about some 24 industry development initiatives. Will you give us the cost benefit analysis details of the options? I note that you have given us three categories of those initiatives, but I would be interested in more details on that. Can you provide that when you provide the other information? The second thing is, in terms of the establishment of new towers, there is the

issue that exists in the community about telecommunication towers. Have you thought about the fact that there may be community unrest about health issues and so on in relation to the establishment of towers? What are your plans for dealing with that?

MR FOWLER: We are actually contemplating relatively few new towers in the network. In relation to the position of the towers, I think the general community would recognise that the emergency services have a major problem in terms of being able to communicate. I think someone mentioned earlier the difficulties around Christies Beach and so forth. Telstra is responsible for managing that component of it. I see it as a different issue from the mobile phone towers. Clearly, the community will benefit from having the fixture. There is also a difference between these towers and mobile phone towers in that mobile phones are micro cell technology and typically are located close to the area they want to cover. This is wide cell technology, so the tower is usually on a hill top somewhere rather than in the local school yard and so on.

142 MS STEVENS: All I am saying is that the public will see towers being erected and hold-ups have occurred in projects. Understandably, the community is concerned about it. I think you need to have a foundation to handle that.

MR FOWLER: Telstra is responsible for doing that under the contract. That is a Telstra responsibility.

143 MR WILLIAMS: Can you say who have been given the primary use of the frequencies of which our emergency services are secondary users?

MR FOWLER: No, I could not. It is not so much that another organisation would have been given the primary use of them: it is the way in which the band plan has been changed. For example, currently we use a larger amount of a particular frequency channel, but the new frequency says that we must use a smaller amount and therefore people on an adjacent channel could interfere with us. I do not want to make it more complicated than it is, but not only is there the primary frequency but also you then get mixtures of two or three frequencies that could then potentially—by pluses and minuses, harmonics of frequency—fall on your frequency. One of the real dangers of all this is it is difficult to predict. If you said that the local real estate agent has been assigned that frequency, you could in an emergency, I suppose, prevail on the local real estate agent not to use that frequency and maybe you would have some success. However, it is not as simple as that. It could be a mixture of two frequencies that are, say, being used in Victoria that are mixing together and causing a problem with the emergency services in Port Lincoln. In fact I have had it put to me that the interference, for instance, that we are copping is from services that are quite distant from us and it is coming from Victoria. Victoria has changed. It was to be the case with the band plan that operation on these frequencies as of 1 July last year was to become unlawful, but the Commonwealth changed its position and said that in cities other than Sydney and Melbourne people could remain provided that they were prepared to operate as a secondary service.

144 MS THOMPSON: So far we have heard nothing about the provision for monitoring the delivery of service. We have heard that there are performance standards. Will you tell us something about the process for monitoring the delivery of the service and the penalties for non-compliance with the performance indicators?

MR CUNNINGHAM: A regime of KPIs have been established for the performance of the contract for Telstra. The KPIs exist in two areas. The first area is in the design and construct and the operate and maintain. Certain milestones have been established and payments are triggered against those milestones and against the successful completion of them in the design and construct. Then in the operate and maintain there are various standards of service delivery in terms of availability of sites and service, the strength of the signal in terms of the speed of the transmission and so on that again Telstra will be monitored against. Predefined rebates have been determined that will apply against its failure to perform. There is a top level of non-performance that would allow us to finish the contract if Telstra was unable to perform successfully. Obviously, that is an extreme measure and would only be used with appropriate reason.

As far as industry development is concerned, again a set of KPIs have been determined. I mentioned one in regard to the GRNC supply of outsource service. All their significant and major industry development initiatives have sanctions and those sanctions have various levels of rebate that would be applied against Telstra. Also, a forum has been established to monitor its performance against industry development as well as the normal contract administration that would be undertaken within the GRN unit to ensure that Telstra fulfilled its obligations.

145 MS THOMPSON: How widely will information on those KPIs be available? Will the people operating the system know what those KPIs are so that they know when to make noises?

MR FOWLER: The performance standards required of the network would be within the knowledge of the users of the network. In fact, one of the requirements under the contract is that Telstra will conduct regular customer satisfaction forums with users, and it is required to make corrective action following those forums—and that is a contracted requirement. By the nature of the network, the actual performance criteria are measurable so that we are dealing with fact and so that in administering the contract we can see whether or not Telstra is meeting the performance standards set down in the contract which originally were part of the requirements that the agencies put to us when we drafted the RFP.

146 THE PRESIDING MEMBER: Thank you for appearing today. I meant what I said earlier about the necessity for you to provide us with some greater detail of the cost savings as a result of using this technology as against extending the existing services for communications in each of the agencies and aggregate that—that benefit, the saving, along

with other efficiencies of scale which the overall network will bring the Government expenditure to add up on an instrumental basis annually with such other benefits as come and have shifted in time to the present to give us a net present value of the investment on what can be shown to be direct quantifiable savings as estimates in calculating that net present value and then an internal rate of return struck as a result.

We should then look at the wider picture of the less tangible savings that will accrue, along with the benefits and what those benefits could be worth. We should consider where are they and what Government agencies have been established in the public interest—for example, surf life-saving, the coastguard and the Royal Flying Doctor Service—and what they could get from utilising this system. It would be helpful if you would then show for us, in tabulated form, with calculations, an even higher net present value and rate of return from it. We would then be able to tell the public about that. Equally, in response to the questions that have been asked by other members of the committee, could you detail for us the ways in which we could explain the benefits that come to the community in verbal terms, addressing those matters particularly to which Mr Williams drew attention in the process? I ask that you please get them to us as quickly as possible, because the only chance we will have if we need to ask further questions arising from that information before 31 May is 24 February.

I know how urgent this matter is, but I certainly will not set aside the responsibilities that this committee has to the Parliament and to the public and do anything that I would consider to be irresponsible. So, there may be a necessity to get some help on that. We need to have that stuff in our hands within a week, if possible, but certainly by the end of business next week at least so that we can analyse it the following Wednesday and let you know whether we need to ask you some more questions on 24 February. Is that understood?

MR FOREMAN: Yes.

THE WITNESSES WITHDREW