

**REPORT ON PROCEEDINGS BEFORE**

**PUBLIC ACCOUNTS COMMITTEE**

**ACCOUNTABILITY MEASURES FOR DECISION-MAKING FOR THE  
DELIVERY OF MAJOR INFRASTRUCTURE, CONTRACTING OF  
PUBLIC SERVICES AND/OR THE PRIVATISATION OF PUBLIC  
ASSETS IN NSW**

**At Macquarie Room, Parliament House, Sydney, on Tuesday 11 June 2024**

**The Committee met at 13:15.**

**PRESENT**

Mr Jason Yat-Sen Li (Chair)

Mr Clayton Barr (Deputy Chair)

Ms Jenny Leong

Mr Michael Regan

Dr David Saliba

**PRESENT VIA VIDEOCONFERENCE**

Mr Anthony Roberts

**The CHAIR:** Good morning, everyone. Before we start, I acknowledge the Gadigal people, who are the traditional custodians of the lands on which meet here at Parliament. I also pay my respects to Elders past and present of the Eora nation and extend that respect to other Aboriginal and Torres Strait Islander people who are present today and watching the proceedings on the web stream.

Welcome to the public inquiry of the Public Accounts Committee into accountability measures for decision-making for the delivery of major infrastructure, contracting of public services and/or the privatisation of public assets in New South Wales. We will be hearing evidence in relation to the Critical Communications Enhancement Program. I'm Jason Yat-Sen Li, the member for Strathfield and Chair of the Public Accounts Committee. With me today are my fellow Committee members, Mr Clayton Barr, Deputy Chair and member for Cessnock; Ms Jenny Leong, the member for Newtown; Mr Michael Regan, the member for Wakehurst; Mr Anthony Roberts, the member for Lane Cove; and Dr David Saliba, the member for Fairfield.

For the benefit of those watching proceedings, the following acronyms are likely to be used in today's hearing. The Critical Communications Enhancement Program may be referred to as the CCEP. The Public Safety Network may be referred to as the PSN. The emergency service organisations may be referred to as ESOs and, in the context of today's hearing, this includes NSW Ambulance, Fire and Rescue NSW, NSW Police, NSW Rural Fire Service and NSW State Emergency Service. I thank the witnesses who are appearing before the Committee today and the stakeholders who have made written submissions. We appreciate your input into this inquiry. I declare the meeting open.

**Mr ROB ROGERS**, Commissioner, NSW Rural Fire Service, sworn and examined

**The CHAIR:** I welcome our first witness. Thank you for appearing before the Public Accounts Committee today to give evidence. Can you please confirm that you have been issued with the Committee's terms of reference and information about the standing orders that relate to the examination of witnesses?

**ROB ROGERS:** I have.

**The CHAIR:** Thank you. Do you have any questions about this information?

**ROB ROGERS:** No.

**The CHAIR:** Would you like to make a brief opening statement before we begin questions?

**ROB ROGERS:** I would, please. Firstly, thank you for the opportunity to attend today's hearing. I would like to put on the record that I am also a member of the Telco board. I think it is appropriate that I put that on the record to make sure that's up-front. I think it's fair to say that the Critical Communications Enhancement Program is an important and ambitious program that will deliver far-reaching benefits for the New South Wales community and safety improvements for our emergency service, including RFS members. The RFS provides fire and emergency services to 95 per cent of the State's land mass. The service operates some 13,000 radios, providing mission-critical voice services, and automatic vehicle location through the PSN, which is capable of scaling and delivering statewide interoperable networks supporting the needs of the RFS during the management of complex, large-scale fires.

The RFS, as an entity prior to the CCEP and the Government Radio Network (GRN) before it, operated some 375 radio and paging sites across the State, which was for our own network. As the CCEP is rolled out, we're progressively turning off the radio functions of those; 129 have already discontinued use and we still have 246 remaining. They're mostly away from the coastal areas, because obviously the process of rolling out the CCEP has been where the population is. West of the ranges is where we've got quite a lot of these communications hubs. Normally, as the Telco Authority comes into an area, they will put something on the same tower, or something quite close, and they will mirror, or very close to mirror, the footprint we already had. We then just turn off the radio component. We still keep the site because we still have paging. We have a very large paging network across the State that services the RFS for its response. But also, we make that network available to the State Emergency Service, so they use that for their response also. It's something that we would see over time that probably would morph into a statewide network as well, as opposed to just being for RFS. But that's how it stands now.

In rural and remote communities, our brigades are the only emergency service for some distance and often work in areas without internet coverage, meaning the PSN is of critical importance to ensure they have reliable communications capability. It's vital that the project continues to be funded to meet the identified requirements of emergency service organisations. I note that the Telco Authority has experienced some delays due to a range of factors, including difficulty acquiring sites to provide coverage across the State, the impact of major disasters, COVID, supply chains, cost challenges—and I think all of us that have been doing any sort of construction, whether it's buildings or telecommunications facilities, know about these cost challenges. Agencies continue to use their existing networks whilst work continues on the development of the project. The CCEP will enable the RFS to optimise investment that is made in new technology, including AVL—automatic vehicle location systems—and mobile data terminals, and deliver greater resilience by enabling the RFS to maximise the use of commercial carrier coverage and then leverage the mission-critical nature of the PSN.

**The CHAIR:** Thank you very much, Mr Rogers. We'll turn to questions now. As you mentioned, the CCEP has been delayed by some seven years. I think everyone in the Committee recognises that it is a very, very important project for the emergency services organisations and the emergency services response. Has this delay impacted the RFS's operations and how has it impacted them?

**ROB ROGERS:** The only impact it really has is the need for us to keep sustaining our aging network of the existing system. We've got, obviously, an existing system that we need to keep using until such time as the full system rolls out. It has meant that we need to keep that older system going longer than we had anticipated. And I think the fact that we haven't yet rolled it out throughout the State—we don't necessarily have the same interoperability with other agencies with designated communications channels and that level of interoperability that emergency services need. That's probably the only delay we have, but we're managing that by using the existing systems we've got, as well as those existing relationships with other agencies locally that work around that and make sure they can still deliver.

**The CHAIR:** Aside from the interoperability, is there functionality that the CCEP has that the existing network doesn't have, even though it's older?

**ROB ROGERS:** Our current network doesn't provide the automatic vehicle location that the CCEP does, so that is certainly one function that we can't use as well. That is also problematic for us. We're in the process of rolling out mobile data terminals which will also access satellite communications, so we're hoping that the combination of the rollout of the CCEP plus the mobile data terminals will give us that level of coverage for vehicle location. Obviously, vehicle location in the middle of fires is important for us.

**The CHAIR:** Yes. This relates to another inquiry we have on that we'll talk to you about separately.

**ROB ROGERS:** Yes.

**The CHAIR:** Thank you. Sorry, I have strayed from the script and I should have said something beforehand. Before we begin the questions, I wish to inform the witness that they may wish to take a question on notice and provide the Committee with an answer in writing within 14 days after receiving the questions.

**ROB ROGERS:** No problem.

**The CHAIR:** My apologies for that. David?

**Dr DAVID SALIBA:** Commissioner, thanks very much for your service. I have a follow-up in terms of vehicle location monitoring. Has that impacted on the RFS's operations to project out and deal with fires?

**ROB ROGERS:** Our operations, as in the delay of it? Apart from the things that I mentioned about the interoperability and the location side of it, rather than impacted I think it has just delayed the enhancement—is probably a better way—because we're very much operating in those areas where it isn't yet rolled out. We're very much operating in the same way we have for decades. I don't think it has made it any worse or anything; it's just that we haven't been able to get the benefit, in those areas, of the enhancements.

**Dr DAVID SALIBA:** In terms of the ageing network and the responsibilities there in terms of sustaining that network, do you have any data there that pertains to the financial cost to sustain that network?

**ROB ROGERS:** No, I don't have that. I'd have to take that on notice because the sites are combined with our paging network. The infrastructure of the site itself is across both types of medium, being the radio and the paging. I'd have to check on what the specific costs are. I'd have to take that on notice, if I could, please.

**Dr DAVID SALIBA:** This is probably more of a statement than a question. If you do get back to us pertaining to that data, the concerns I have obviously relate to the financial costs, the workforce that has to be diverted to sustain that ageing network as well, and the subsequent training liability—that is, you've got your awesome volunteers that are using current systems that will eventually have to roll over to new systems and, from that, there would be a significant training liability there that would have an impact, and this delay would feed within that impact as well. That is something I'm concerned about.

**ROB ROGERS:** I think all of those technological improvements that come with these things—or, indeed, with any technology change—always have that level of time to integrate the training, and obviously we're a very large organisation so it does take some time. We're working through that at the moment with the mobile data terminals, where we're trying to move away, as much as we can, from radio communication because of the time that takes, particularly when it gets congested, and moving more to pushing buttons. For people that might be farmers on the land, they're not necessarily across that. I think all of those things are real issues we have to grapple with because we have to provide improvement on systems but not lose sight of the fact of who the audience is that is going to be using them.

We have to balance those two things, but, certainly, I think there are some really good technological solutions on the way forward. I think, as we roll out the new network, we'll also even be looking at the way we allocate channels for specific emergencies. Whereas at the moment we have liaison channels, so we can turn and talk to different agencies, as we get—for example, I know the National Parks and Wildlife Service are moving toward this as well, and the Forestry Corporation, Fire and Rescue, and all of the firefighting agencies will be on that system. But, to me, I think what we will end up doing is allocating a channel for a fire, irrespective of whose channel it is—it doesn't really matter—and then everybody will be on the same channel, which is not something we have at the moment.

I think the technology ahead is really positive, but it obviously just needs to take that path to fully implement it. I do know from my time on the Telco board that it is very much a focus of the board, trying to get these things rolled out as quickly as we possibly can, but doing so in such a way that it is cost effective for taxpayers, because particularly the acquisition of sites and that is quite problematic. You have to be able to do that at a good cost to make sure we're getting value for money.

**Mr ANTHONY ROBERTS:** With respect to value for money, since the start of the CCEP, your agency's core user charges, have they increased or decreased?

**ROB ROGERS:** It has actually changed. That's a difficult question to answer because, historically, there used to be a per-radio charge that we used to get, whereas then it was just worked out as an average. I think it's an average based on the consumption of the frequency, for want of a better word. We get a set charge per year. It has been relatively static as far as the percentage. Of course, the charges go up, but then everything goes up. I don't think it goes up beyond what you would expect it to go up. That's part of the parameter technical adjustment submissions to Treasury about what those things cost the agency. We have been, historically, supported for those charges by government and by Treasury. It's an expensive proposition, irrespective of whether we have our own network or the shared network, but I do know that if each agency attempted to get the functionality that we're trying to get with the CCEP, it would cost the State enormous amounts of money—a lot more than what is being budgeted for now.

**Ms JENNY LEONG:** Mr Rogers, obviously there is the percentage of the user charges that you're paying, but in some of the evidence that we've heard previously, my understanding is that because of the delays in the project, people are still using their existing communications infrastructure, and in some cases that was quite old or in need of additional work, and budget costs and expenses to be able to maintain that because of the delays. Can I just have an understanding of the costs associated with maintaining your existing communications system considered as part of the quite significant budget blowout for the overall program, or are they being covered by RFS and should they be considered in addition to the increased costs of the project?

**ROB ROGERS:** No, they would be things that RFS are directly covering. As I mentioned before, I'd have to take on notice the cost.

**Ms JENNY LEONG:** Yes, I'd appreciate if you could provide that.

**ROB ROGERS:** We'll get the costs, but I'm not sure what the quantum is for that. If I could, I'll get that back to you.

**The CHAIR:** I'm not sure how your agency works or does its forward budgets but, foreshadowing that the CCEP will be in operation, you would have a range of benefits and savings and efficiencies baked into your future budgets. Because it has been so delayed, I don't know if you have any information about how that has impacted your future budgeting and whether economies of scale are no longer realised. There are those additional cost impacts. So any information you might have around that—broadly, what we're driving at is that we want to understand how we can do things better as a government. When we're rolling out complex, technical, IT-related projects, what are the lessons we can learn from what has happened here?

**ROB ROGERS:** From my point of view, some of the complexities have also been that each agency has historically operated in a very different way because they've been operating in their own silos, on their own networks. The work to bring those agencies onto common systems and having the functionality that all of the agencies need in those systems also makes it not impossible but a little more complex, and it can be a little bit more time-consuming. I know the Telco has been spending a lot of time trying to make sure that they meet the needs of police because they have some unique needs themselves. I think the desire from the Telco is to make sure that, for all the agencies that are going onto the network or using the network, it meets their needs. That is something that's very high in the prioritisation. Whether that means that ends up generating a little bit of delay as well, I don't know, but that's just a one-time delay. Once people are on that, hopefully, we shouldn't see any of those issues.

But I think the unfortunate part of it—and we've seen it at buildings, when we're building fire stations and fire control centres ever since COVID impacted, the cost and the delays have just been horrendous. On some buildings that were only priced a few years ago, we are now looking at 15 per cent higher costs. It's really something that seems to be right across any sort of construction or projects of that type. I don't know that anybody could have foreseen that coming. I know we certainly didn't, from our budget side of things, and there was support to try and make some things work better during COVID but, obviously, with the State's budget and how tight it is, those direct supports have to be wound back. I guess we're left now with trying to do the best we can to implement these systems and make sure they live up to the promise that was made for them. At the end of the day, this is about systems to support our frontline workers, be they employed or volunteer, and we need to make sure that can do that.

**The CHAIR:** Do you think there are lessons that have been learnt? Next time something like this happens and there is a big technical implementation, how do you think we might do things better, from both a budgeting perspective and an implementation perspective?

**ROB ROGERS:** I think that whenever you do something major there are always lessons to be learnt, and I think this will be no different. I don't know whether that's more about the site acquisition side of things, because I know that's been quite an issue on some of them and whether that's something that was underestimated.

I don't know, but I know that level of work of acquiring them has been problematic. Again, I don't necessarily know the solution to that. Whether it's something where you start a little earlier, I don't know. I don't know because until such time as it's a little bit further down the track I think it's hard to probably do a formal lessons-learnt. I don't think that's necessarily been done with the agencies as yet, but there certainly should be a lessons-learnt to make sure that we understand what things can be improved in the future. But it's important to understand then how that gets promulgated across government for other types of projects that are quite complex and detailed because, obviously, government is a very big entity as far as what it does, and you would hope that these sort of lessons learnt—the things that do get picked up in this—are things that can go right across government.

**The CHAIR:** What has raised everybody's eyebrows is that we are not talking about a 20, 30, 50 or even 100 per cent cost blowout. We are talking about a five-times-initial-cost blowout. In previous evidence that we have heard, one of the reasons given for that was that the estimates that were made at the beginning were really quite out of whack with the commercial reality when the project actually went to market and the commercial quotes were sought. I assume you were not part of the Telco Authority or on the board at the time.

**ROB ROGERS:** No.

**The CHAIR:** Do you have any comments or thoughts as to why or how the estimates could be so far removed from the commercial reality?

**ROB ROGERS:** I'll be honest, I don't know. I wasn't party to those estimates, so I honestly don't understand how they could be that far out. I'm not sure. I honestly don't know. I think the difficulty is that the Telco itself has had a big change of staff as well in that time, so I'm honestly not quite sure. To be honest, I'd just be guessing. I don't honestly know the reason why that is, and I can't give you an explanation as to why that's so different. I can certainly understand some of the cost pressures but not to the extent that you're speaking about.

**Dr DAVID SALIBA:** The RFS is, effectively, a user of this product, and 2016 was design conception pertaining to the scope of the product, so to speak. It was expected to be delivered in 2020. We are now looking at it being potentially delivered in 2027. We are looking at a good 11 or 12 years from initial stage to the end stage. Noting that when you look at telecommunications, on average, a generation in telecommunications products is around 10 years, so you are effectively looking at a new generation of telecommunication equipment in 2027. As the commissioner of the RFS, do you feel that the system will be fit for purpose in 2027, or that this delay may impact on its ability to be fit for purpose in light of the current technology that will be out there?

**ROB ROGERS:** I think that's a really difficult question to answer, because the life span of technology is really tough to work out. You see things that come out and you think, "Wow, look at that. That's such a long-term thing." But then, suddenly, someone else invents a better widget-type thing and it makes it all different. Even if you look at satellite communication now, it was horrendously expensive only a few years ago, whereas the prices are starting to come down for that now. That's something that, in more remote areas, becomes a little bit more viable, even for communication—as we were talking about now—in the remote areas. I think it's a really hard question to answer, but what I would say is that I don't know of anything else that would do the same job with current technology now. I don't profess to be an expert in the field; I'm not. But I don't know of anything better now. I guess it's fair to say that, for those areas where it isn't in place, the delay will reduce the number of years that it will be in place for that technology. But that still could be 20 or 30 years; I just don't know what that is.

**Dr DAVID SALIBA:** As a follow-up question, is the Telco Authority or the project manager who is delivering on this having regular touch points with the RFS to let them know that this is the current landscape, this is what we are offering and basically comparing it to what is out there?

**ROB ROGERS:** Absolutely. To be honest, it is something that, obviously, because I am involved in the Telco board, I'm very keenly looking at. Certainly, for example, with the mobile data terminals, we're looking at satellite connectivity for that statewide, where it's outside of a mobile carrier's footprint. The Telco is helping us with the tendering for that and making sure that we're getting good value for money. The Telco is able then to say that that offering—whatever we secure—is able to then be provided to other government agencies if what we're doing is better than what they're getting. I think the Telco is becoming a really important partner for agencies who aren't specialists in this sort of technology and communications to try and help them get the best value for taxpayer money but also then capitalising on whatever investment is there to make sure it is available for all government agencies to, again, help with the efficiency and cost-effectiveness of these solutions.

**Ms JENNY LEONG:** Commissioner, you were talking about the paging network specifically, and my understanding is that you were saying, obviously, that would then be used by the SES and potentially morph into a statewide use in the future. My understanding is that the CCEP originally included within the scope of the business case the delivery of a statewide paging service. That was removed from the scope. In saying that would be in the future, are you suggesting that that would be reinserted into the scope of the current CCEP, or are you

suggesting that that would be a future communications project that would need to be undertaken? I just want clarity on that, and then I have a follow-up question, subject to that.

**ROB ROGERS:** A future—I do understand what you're saying. It was originally included in the scope and then was removed. I think that the issue there was all of the agencies had quite complex needs for a paging network and it just was problematic from a cost point of view. RFS is maintaining its current network, keeping it as a standalone network run by RFS but made available, obviously, to SES. I think the volunteer rescue association also use that network, and of course any other agency that needs to go on it can do so. It doesn't cost us any more for anybody using it—the more the merrier from our point of view; it becomes better value for taxpayers. You're correct. It would be a completely separate body of work to be reinserted back into the Telco's scope of work.

**Ms JENNY LEONG:** So in this case then there's, in addition to the—if we looking to the Chair's point around the project currently being five times the estimates, then we're looking at adding on to that whatever is the cost of the individual ESOs maintaining their existing networks, which would be potentially taken care of, at least in your case, by the RFS within your budget internally, and then also the cost of a future project, which would be the paging project, because that's no longer in the scope. In terms of the original scope of the project and the RFS's needs back when that was being scoped, are there other elements that the CCEP won't be delivering on that will need to be part of future communications projects now? Or was the paging one the only one?

**ROB ROGERS:** To my knowledge, only the paging. I don't know of anything else off the top my head. I will check but I don't believe so.

**Ms JENNY LEONG:** If you want to take it on notice and see if there's anything else, that would be great.

**ROB ROGERS:** No, I don't believe so.

**Ms JENNY LEONG:** My final question was trying to understand where the Telco board sits and how it works. I'm curious, is your role sitting on that board as the commissioner? Or you are on that role as an appointment separate to your role as the commissioner? Does whoever the commissioner of RFS is get to sit on the board of the Telco or is that a—

**ROB ROGERS:** No, I'm appointed to it.

**Ms JENNY LEONG:** Right, thank you. It's just that we have other witnesses that are also on the board of the Telco and I wasn't sure whether or not—how that interaction worked.

**ROB ROGERS:** In saying that, I did go on the board following the resignation of Shane Fitzsimmons, the previous commissioner, who was on the board, so I think the idea—

**Ms JENNY LEONG:** So it's not a requirement but it's been a—

**ROB ROGERS:** It's probably more of a convention that it's been. Because RFS is such a big user of telecommunications throughout the State, I think that it's been considered that it was appropriate that RFS be on it, as well as police are on it as well. I think that's simply the scale of the user.

**Ms JENNY LEONG:** Thanks for clarifying that.

**Mr CLAYTON BARR:** Commissioner, thank you so much for all of your work. I'm trying to pick through the cost blowouts and whatnot. I appreciate that a number of business cases were contemplated prior to you coming becoming the commissioner but the initial business case for \$401 million was going to deliver approximately 378 sites with 45 per cent land coverage and 96 per cent population coverage. Those 378 sites are very similar to your 375 sites. Do you know whether or not they were purposely and intentionally matched because there was this sense that they were going to essentially lob their gear on to your existing infrastructure—towers and things?

**ROB ROGERS:** I think there was a component of that but I also think that that's probably just an approximation of how many towers you need to cover a particular geographical area. I think that there would be a heavier concentration than RFS has, for example, in the Sydney metro area but RFS has a lot of stuff out Far West that is not being covered anywhere. They are a little few and far between, of course. I think it's probably just more coincidental but there certainly is, as I've mentioned, 129 sites that we've turned off the radio component. I think it's probably just the number needed to cover the geographical area of the State. With things like the Dividing Range, it really makes it quite critical and there is quite limited—if you go up to your neck of the woods in the Hunter, you've got something like Mount Sugarloaf. There are not too many other alternative sites that can project both sides of that mountain range, so it makes sense that you'd put it on those same sites. If you go right up and down the coast, it pretty well mirrors that same circumstance.

**Mr CLAYTON BARR:** In sense of the sites that RFS historically have developed and owned, do you own the land or is it Crown land? Do you build the tower and own the tower?

**ROB ROGERS:** No, we don't. There are some that are commercial. They have multiple people—like Sugarloaf, somewhere like that is a big site, but others are owned by local government. For some, we put up the tower but they're vested then in local government because of the vesting arrangements with RFS. From our point of view, we've had a philosophy of wherever it needs to go, we either put something up or we work with an existing provider. Our preference is to go where there is already something there because whilst you may pay a cost, it's a lot less than having to construct a brand-new tower yourself. We're not in the business of trying to own these things. We're not experts in this area, so we prefer someone else to look after that. As it is we have a fairly involved comms team because of all the radios—the 13,000 radios we've got. It's quite a lot of work just simply administering all that without adding 300-odd sites to it as well.

**Mr CLAYTON BARR:** I agree that's eminently sensible, but I believe—please don't let me put words in your mouth—earlier you mentioned that one of the challenges for the Telco Authority was acquiring sites and getting those developed and approved. Could you please clarify? Is the Telco Authority seeking to have their own sites to acquire and establish, and build and construct towers, or are they going to jump on to an existing tower, or is it a combination of everything?

**ROB ROGERS:** My understanding is the preference is that if there's something already there, go on to that site, but part of what they're looking at is also the sustainability of that site. Is it a safe site? Does it have good power redundancy? Is it in an area that is safe from natural hazards and all of those sort of things that they have to establish to ensure that where they're putting in taxpayer money, that it's a good vested thing because the last thing you want to do is have that site go down at the wrong possible time. In doing that, they have temporary things that they can bring in where they do lose a site that they call—I can't remember what it stands for now; I can only remember the acronym—COWs. Cell on wheels—that's the thing. They do have that sort of redundancy, but my understanding is that they would go on to existing sites.

**Mr CLAYTON BARR:** Can I just clarify? In that very first business case where they were proposing to have 45 per cent of land coverage, do you have any idea what your old 375 stations would have provided in terms of land coverage as a percentage?

**ROB ROGERS:** I'd have to take that on notice, I'm sorry. I don't have that on me but I'll take that on notice. We would have a rough estimate of that that we would be able to give you back.

**The CHAIR:** Can I put an additional nuance on that? With the CCEP, are there areas that weren't previously covered by your existing network that would be covered under the CCEP?

**ROB ROGERS:** Sorry—that weren't covered that now would be?

**The CHAIR:** That would be when the CCEP is fully implemented. Were there areas of new coverage that the CCEP would push into that isn't covered under the old radio network?

**ROB ROGERS:** I think there is, but I think—again, I will check it—some areas where we had some gaps are areas like Putty Road, which was problematic for us with our current network. My recollection is that that part was going to be, or has been, addressed. If I could, I'll check that out for you.

**Mr CLAYTON BARR:** It's a tough valley to get into.

**ROB ROGERS:** It is. Unfortunately it has a lot of problems, like motor vehicle accidents.

**Mr CLAYTON BARR:** It does.

**ROB ROGERS:** There's not really anybody else apart from RFS. We do some rescues and we're the community first-responder for medical as well as fire protection. It is a pretty important area for us.

**Mr ANTHONY ROBERTS:** One of the issues that we faced during the last bushfires, for example, was the failure of a number of towers. As soon as the power went down the towers went out and we lost a large amount of communications. What are we doing with the large CCEP investment to ensure that this does not happen again?

**ROB ROGERS:** That is a very good point. I know that they've got battery backup for certain sites and times. There's also a provision to put generators on site. Indeed, we have also been talking to the Telco about using our helicopters to deliver fuel to those sites to keep them going because they are absolutely critical. Apart from the work that they provide for connectivity for the emergency services, they are also inevitably mobile phone towers to provide communications for the public. Apart from the critical roles these towers provide for the services, in rural areas particularly, those same towers—as I mentioned, they're very commonly on well



geographically located spots—do everything. We can't underestimate how important for the community it is, as well, to keep those towers going. There has been work and there has been a lot of planning about the level of support for those towers. Because we have aircraft and helicopters can get that fuel in where others can't, necessarily, we are absolutely committed to supporting the Telco to keep all of those towers going.

**Mr ANTHONY ROBERTS:** I've got one other question about CCEP and its rollout with respect to the work done over counterterrorism issues—for example, the hacking or disabling of that network. Is that in the general purview of your board?

**ROB ROGERS:** The security of the network is something that I know does get looked at. I can't tell you the current standard of needs because I don't necessarily know those things in detail. The criticality and vulnerability of communications, or any level of technology, is something that the Government as a whole, and all departments, are very aware of and work very hard to harden up as much as possible. The Telco themselves would probably be better placed to provide that information back to you.

**Ms JENNY LEONG:** I had a quick question that the Commissioner could take on notice in relation to the challenges and potential delays of the rollout because of the complexity of dealing with organisations or emergency services being siloed, and then trying to bring everybody together to scope that project. Given my colleague's comments around the potential for needing to upgrade that technology into the future, do you have thoughts around the governance structures going forward on the point where everyone transitions from their own systems to this new system? I am happy for you to take it on notice, but learning the lessons from this past situation, do we find ourselves starting again from scratch or do you believe that there's going to be governance arrangements set in place for a commitment where everyone will move over to a shared system once the system is delivered? How will that then be assessed in terms of future technology improvements?

**ROB ROGERS:** It's a very good point. I think we are in a better place than we were historically. If you go back to the original GRN as it was, there were exemptions given to different agencies at the time to not move on to what was the GRN. Unfortunately, that's contributed to where we are at now. I think it's regretful that that was done. Back when the GRN was first brought in, if everybody had moved across I wonder whether we would be in a better position now with everything a bit more harmonised than it otherwise is.

**Mr CLAYTON BARR:** We would have already figured some of this stuff out.

**The CHAIR:** It is not easy. Commissioner, thank you for appearing before the Committee today. You will be provided with a copy of the transcript of today's proceedings for corrections. Committee staff will also email any questions taken on notice from today and any supplementary questions from the Committee. We kindly ask that you return these answers within 14 days.

**(The witness withdrew.)**

**Assistant Commissioner STACEY MALONEY, APM**, Commander, Technology and Communication Services Command, NSW Police Force, before the Committee via videoconference, affirmed and examined

**The CHAIR:** Thank you for appearing before the Public Accounts Committee today to give evidence. Can you please confirm that you have been issued with the Committee's terms of reference and information about standing orders that relate to the examination of witnesses?

**STACEY MALONEY:** Yes, I have.

**The CHAIR:** Do you have any questions about this information?

**STACEY MALONEY:** No, I don't.

**The CHAIR:** Would you like to make an opening statement before we begin questions?

**STACEY MALONEY:** Yes, thank you. The NSW Police Force welcomes the opportunity to contribute to this Public Accounts Committee inquiry. We note the terms of reference, and I would like to make a brief opening statement on behalf of the NSW Police Force. The mission of the NSW Police Force, as set out in the Police Act 1990, is to "work with the community to reduce violence, crime and fear". We aim to protect the community and property by preventing, detecting and investigating crime; monitoring and promoting road safety; maintaining social order; and performing and coordinating emergency and rescue operations. The Technology and Communication Services Command has responsibility for managing NSW Police Force statewide information and communications technology and services. The Wireless Network Group is responsible for the management of the NSW Police Force radio network, inclusive of the maintenance of 590 active radio sites, 14,000 vehicle and portable radios and other assets.

As a part of the ownership and management of radio sites across the state, the NSW Police Force has responsibilities associated with a large radio network, including site and Australian Communications and Media Authority (ACMA) licence compliance, network design and infrastructure procurement. Related units within communication services include the Radio Operations Group, which manages statewide radio dispatch services, rescue and incident coordination as well as 000 emergency call taking. PoliceLink Command manages the majority of 000 calls, along with non-emergency call taking, digital reporting and multiple other business streams that support the wider NSW Police Force. NSW Police Force anticipates that a fully delivered PSN will provide operational flexibility and capability through the statewide radio channels, enhanced in-building coverage, location services and interoperability with other emergency service organisations.

From a technical and operational perspective, the PSN has historically not met NSW Police Force requirements for a law enforcement mission-critical communications network. This is largely due to the limitations in network coverage and issues arising from network congestion. Note that these limitations are generally related to the use of portable radios, which are relied upon by the NSW Police Force more heavily than other ESOs. The police radio network is encrypted, critical to ensuring its secure and safe operation. The NSW Police Force will require voice and data encryption in the PSN when it migrates.

The PSN will allow different ESOs to operate on their own encrypted network while being able to communicate on nominated channels. The full delivery of the PSN will allow the NSW Police Force to focus on core business as a consumer of the PSN rather than managing the responsibilities associated with being a radio network owner/operator. As a consumer, however, the NSW Police Force will still be required to fund and manage other elements, including radio terminals, consoles, deployable assets and other back-end infrastructure and systems. It should be noted that the NSW Police Force is not a core user of the Public Safety Network at present.

In 2022, the NSW Police Force initiated a proposal to collaborate with the NSW Telco Authority with a focus on delivering PSN capability. The collaboration allowed for the NSW Police Force to be in a position to assess the technical capabilities of the PSN, as well as to discuss the prioritisation of PSN radio sites, particularly in the Greater Sydney area (GSA). The intended outcome of this piece of work is to pave the way for potential migration for the NSW Police Force onto the PSN. The proposal requires the uplift of current and new sites, and rigorous testing prior to any transition.

The aim is for the NSW Police Force to move to a hybrid model as a radio consumer in the GSA and radio operator outside the GSA. Therefore, the police radio network would still need to be maintained in regional areas, which would require ongoing funding and resourcing. The anticipated date of delivery for the GSA uplift is between the end of December 2024 and early 2025. The NSW Police Force will continually assess uplift progress and testing prior to any decision made on the transition. Additional funding for consoles, terminals and network systems that are not funded through the PSN would still be sought.

I stated the NSW Police Force is not currently a core user of the PSN. However, it pays a subscription. For the last 12 months that was \$1.6 million for specialist command use of the network where it is available. The NSW Police Force has participated in reviews of funding arrangements and has sought clarification from NSW TA and Treasury regarding future core user and subscription fees. At the recommendation of Treasury and in consultation with the Telco Authority, the NSW Police Force has submitted a lean business case to inform a new policy proposal. This submission remains with Treasury.

Finally, it should be noted that the NSW Police Force continues to explore current and emerging technology, particularly for regional areas, to enable connectivity. Current proof of concept projects have provided an evidence base that new and emerging technology will provide coverage benefits that the PSN cannot. Many of the ESOs are exploring communications technology outside of the PSN that will provide operational benefits. The NSW Police Force is assessing low Earth orbit satellites, particularly for regional areas and specialist units, to ensure reliable communications. While these remain to be fully assessed and funded, both the New South Wales and Federal governments are looking actively at the public safety mobile broadband as a communication platform for ESOs.

**The CHAIR:** We will now move to questions from the Committee. Before we begin questions, I wish to inform the witness that they may wish to take a question on notice and provide the Committee with an answer in writing within 14 days after receiving the questions. Assistant Commissioner, if I heard you correctly, you are saying that there is no existing commitment for the NSW Police Force to migrate completely onto the PSN, even after the full rollout of the CCEP?

**STACEY MALONEY:** In terms of the standards, what New South Wales requires is the same, if not better, from our current radio network. At this stage that is not the case.

**The CHAIR:** So it's conceivable that even after the full rollout of the CCEP, the NSW Police Force will not migrate fully onto it and will need to maintain its own police radio network, together with the PSN?

**STACEY MALONEY:** It's conceivable, yes, but that's obviously something that we would not like to move toward. We would like to be a consumer of the PSN rather than our own owner/operator, as we said.

**The CHAIR:** Do you have any insight as to how that is impacting your budgeting and your operational planning into the future? Does it make it very difficult to assess what is going to happen?

**STACEY MALONEY:** It certainly does. We have obviously been required to continually upgrade our current police network, with obviously our mind's eye focusing on potential migration as well into the future. We have spent quite a bit of money on our current radio network to date, since probably 2019 and still planned for up to 2029, particularly for those regional locations, as I mentioned, because the delivery of the PSN at this stage is planned for 2027. However, we know that there are aspects that have impacted on that delivery thus far, and there's nothing to suggest that environmental impacts per se won't continue to impact, and that that may be pushed out further. Obviously we do need to plan for those major capital projects within the NSW Police Force budget envelope and continually speak with Treasury around opportunity for New Policy Projects (NPP) or Parameter and Technical Adjustments(PTA) ongoing to ensure our radio network is fully operational.

**The CHAIR:** Do you have any information from when the CCEP business case was being put together and the user requirements were being negotiated with each of the ESOs, including the NSW Police Force? Do you have any insight as to whether it was understood by the NSW Telco Authority that the NSW Police Force may not sign onto this completely, and that very high standards in terms of the capability of the network were required before you would do so, including the encryption capability?

**STACEY MALONEY:** I will take that on notice, just to give you the clarity for that question, other than to say the position has always been same, if not better. But I do believe that there were requirements given to the TA. However, as I said, I would like to take that one on notice to have some proper clarity to provide to the Committee.

**The CHAIR:** Can I also assume that, given there hasn't been this clear commitment from the beginning, you hadn't baked in particular benefits or the realisation of particular benefits from the CCEP having been delivered? It was sort of wait and see to track. "We'll see how the CCEP rolls out. If it goes well and it can deliver the capability, then we'll think about switching across. In the meantime, we will continue operating and investing in our own police network." So you haven't counted on any particular benefits being realised from the CCEP?

**STACEY MALONEY:** I think initially the police radio network was certainly superior to what was being proposed. So I think, yes, it probably was wait and see. However, I think we are now coming to a point where, as I mentioned, in the Greater Sydney area the benefits to be realised would be delivered on the PSN. So we saw that as an opportunity to look to start the conversation around migration, given it was legislated and, as

we said, it doesn't make sense to be an owner/operator forever. In terms of the resourcing requirements, as I mentioned, around the maintenance requirements, ACMA licences, landholder leases et cetera, it does make sense to have a whole-of-government approach, if that network is superior to our current radio network.

**The CHAIR:** As you just mentioned, Assistant Commissioner, given it was legislated—and our understanding is that it was a legislative requirement that all the ESOs migrate to the new upgraded PSN after the CCEP—how was the NSW Police Force going to negotiate that detail?

**STACEY MALONEY:** I think it was the evidence base that our network was still superior to the public safety network, and we were not going to put our people or the community at risk given our network was considered to still be superior.

**The CHAIR:** So your understanding is there was a condition as part of the legislative requirements that, for the police at least, the capability of the PSN had to be the same if not better? Otherwise there wouldn't be a requirement to migrate across.

**STACEY MALONEY:** I'm not aware, so I'd have to take that one on notice—if there was a condition expressly made. But certainly it was the NSW Police Force position that unless it was same if not better there wouldn't be a migration.

**Mr ANTHONY ROBERTS:** With respect to the safety of police officers in undertaking their duties, particularly as so many of those communities involve the assurance that there is good in-building coverage, our understanding is that, when the CCEP concludes and the funding ends, new or refurbished buildings and infrastructure won't be covered. Is that one of the reasons you'll carry on with your existing network?

**STACEY MALONEY:** I think the in-building coverage has probably come a long way in terms of, definitely, the focus on the Greater Sydney area. I think in terms of prioritising areas of focus, the Telco Authority worked very well with us in understanding that that was something that we needed to focus on—and I would assume, equally, NSW Ambulance and Fire and Rescue NSW. I guess the best bang for buck was going to be in the Greater Sydney area in terms of our population et cetera and the requirement for hospitals, shopping centres for that in-building coverage to be at a standard that we all expected. They certainly recognised that that was an opportunity for them to work with us. But in answer to your question—sorry, can you repeat the first part of your question?

**Mr ANTHONY ROBERTS:** Understanding the importance of that in-building communication that puts potential emergency services workers at risk or not being able to fulfil their duties—again, if CCEP funding finishes, is that one of the reasons you may not move across?

**STACEY MALONEY:** No, I wouldn't say that that is one of the main reasons, other than to say I know that the TA are working with Infrastructure NSW to look at new builds and what should be a requirement for new builds, particularly in-building coverage, so it's not something that is a retrospective fit. Certainly, that is a conversation we have had. But in terms of same if not better, I suppose that would apply.

**Dr DAVID SALIBA:** Are we saying right now, as of 2024, that what is proposed under the CCEP is not the same or better than the current system that police have?

**STACEY MALONEY:** Correct.

**Dr DAVID SALIBA:** What do you think the probability is in terms of migration happening in 2027? Is that something you could answer?

**STACEY MALONEY:** I think Commissioner Rogers said something similar in that I don't know if we could potentially predict that, other than to say there are other technologies that are coming to light that we are certainly testing as proof of concept. If the CCEP is delivered in 2027, those could certainly support and supplement the PSN. But I think in particularly the regional areas those new technologies are probably going to surpass the PSN in terms of delivery.

**Dr DAVID SALIBA:** Is it fair to say that, given the delay from 2020 to 2027 pertaining to the delivery, what is now being proposed is effectively obsolete?

**STACEY MALONEY:** We term our P25 network as a legacy network in terms of technology. However, it will always be our BCP. I would align the PSN with a similar description. I think that that would always be our fallback.

**Dr DAVID SALIBA:** So in 2016 everyone came to the table with respect to this program. Eight years later I'd imagine that there would've been synchronisation meetings between the different stakeholders to talk about the product scope, its delivery aspects, issues pertaining to whatever may be brought about from it all. Did

that happen or not? Do you feel that the New South Wales police were properly engaged over the past eight years pertaining to the scope and user requirements?

**STACEY MALONEY:** I'd have to take that one on notice, given I didn't commence in this role until 2021, but, as I said, my understanding was—and I will take that on notice—that there were requirements provided by the New South Wales police to the Telco Authority. I have not seen those personally—so outside of 2021.

**Dr DAVID SALIBA:** And was it a two-way conversation or a one-way conversation? Because that's the important lesson for us—to learn from that. And my final question is: How do we fix this?

**STACEY MALONEY:** That's a good question. In terms of the communication I've had with Telco Authority since I have been in the chair from 2021, it has been quite good. I think they've been receptive to everything that we've put forward. In fact, I meet with them regularly, particularly around the delivery of the Greater Sydney area for the PSN. I think they've recognised that there is an absolute opportunity for delivery there, as I said, and it probably delivers the most bang for buck given the population within that. That would consist of central metropolitan region, south-west metropolitan region and north-west metropolitan region. I think the conversations have been there. I think the meetings that have been held have certainly been frequent in terms of the steer co and there are other working groups at the lower level. From my view, in terms of engagement with the Telco Authority, it has been very good. But prior to that I'm not sure to the extent that it should have been or was.

**Dr DAVID SALIBA:** From a steering committee perspective, is it just New South Wales police or are there other agencies as well that are saying, "Hey, this is not exactly meeting"?

**STACEY MALONEY:** Certainly there are other ESOs. All the ESOs are on that steering committee. From my view, many people were happy to put their points of view forward.

**Ms JENNY LEONG:** Can I clarify as well, because the commissioner of the RFS said that he was on the board of the Telco—is it correct that you're also on the board? I was looking it up when he mentioned it and I wanted to clarify, because obviously people can have similar names, so I wanted to check.

**STACEY MALONEY:** That is correct. I am on the board, yes.

**Ms JENNY LEONG:** Just in terms of the conversation and to your point around the need for the communication technology to be the same if not better, can I ask you the reason there is not a consideration then in terms of—leaving aside how we've got to this point and what work has been done so far, what would be stopping all of the other emergency service organisations taking on board the existing New South Wales police system and that being rolled out as the statewide communication infrastructure? Would that then undermine where the police are at? What I can't understand is, if you've got a system that is arguably going to be better than the system that is going to take five times the budget and double the amount of time to roll out, why was there never a conversation about the other emergency services being able to access the police's technology. Because it sounds like you have the best communication capabilities in the State.

**STACEY MALONEY:** In answer to your question, it was at a point in time, but now we're reaching a point where the PSN is considered to be superior to our police radio network, particularly, as I said, in the GSA, the Greater Sydney area—hence why we're looking to migrate. But outside of that area our police radio network is still considered superior in terms of the coverage requirements.

**Ms JENNY LEONG:** I appreciate you weren't involved in the initial scoping of the project but, in terms of being clear now about what the improvements would need to be outside of the Greater Sydney area to be able to meet those improvements, has that information been put into the Telco Authority? How confident do you feel that that is now being considered as to whether or not it will be rolled out? My understanding is the entire initial purpose of this was to have everybody using the same communication technology. If we're halfway through it and the costs have blown out but we're still not necessarily guaranteed that everyone's going to be on it, I think it warrants a look at that in more detail. Are you still feeding those things in? Do you see that as a limit to the technology, a limit to the funding available, or a limit to how much we can integrate between the ESOs?

**STACEY MALONEY:** No, I think it just comes down to the number of radio sites that need to be built. At the present moment we have 590 sites, and I think we have the vast majority in terms of the other ESOs. When the PSN is fully delivered, it will deliver more than 700 sites. So you can do the mathematics, I suppose. There are additional sites which would provide greater coverage, and we don't want to be in the business of building more radio towers, from a policing perspective. We want to focus on our core business. That was the role of Telco, and certainly that's what the intent is.

**Ms JENNY LEONG:** My final question goes to the legislative requirement about everyone moving on. I think you said the NSW Police Force position was it needs to be the same, if not better. I'm happy for you to take it on notice, but I'm just really unclear: I don't think the NSW Police Force has the ability to go against a legislative requirement. I'm just really curious to know where that position was formed and how that sits with the legislation. It would be great if you could let us know how or where that decision was made as a NSW Police Force decision, and how you would see that interacting with the legislative requirements. That would be really helpful.

**STACEY MALONEY:** Yes, I'm happy to take that on notice. But, as I said, I suppose government took on board our concerns around safety to the public and community, and our workforce as well, if it was not a network that was at the same level as ours.

**The CHAIR:** As an addendum to that last question—and this is a hypothesis—whether, because you said that police is not a core user of the PSN, the police coming on board was always icing on the cake, and the core business case for the PSN relied on the other ESOs, not necessarily police. You guys were always like a special case but, if you did come on board, that would be the cherry on top—whether that was the thinking at the time or whether New South Wales police coming on board was actually a critical part of the business case.

**STACEY MALONEY:** As I said, I think as it's progressed since 2016, if we had 590 radio sites operating effectively—obviously, they've only recently built, I think, maybe—I'd have to take it on notice or the TA could provide the detail around when they hit each of those radio site number areas, but they haven't hit the 700-plus yet. I think they're in the 600. So, as I said, if we had 590 operating effectively and inclusive of other ESOs having some of their infrastructure on our towers—certainly, we were still considered to be waiting for same, if not better.

**Mr CLAYTON BARR:** Assistant Commissioner, you've used language about "us building" and "our towers". I asked Mr Rogers a similar question to this: Do you own and construct towers that specifically belong to New South Wales police?

**STACEY MALONEY:** Yes, we did. But, obviously, we're not doing that anymore, given the legislation requirements. We have vested about 100, and I can get that exact number, to TA. So obviously looking at ensuring that this infrastructure is not going to waste—and certainly, where TA wanted to have those towers vested across, it's not wastage. They're still fully functional. I think they really only needed to just build huts next to those towers. But, outside of that, we have obviously stopped building any more infrastructure that would be owned by New South Wales police in terms of cooperating and collaborating with TA and complying with that legislative requirement.

**Mr CLAYTON BARR:** Of the 590 sites, do you have any idea how many were owned and constructed by New South Wales police, as opposed to leasing space on someone else's tower?

**STACEY MALONEY:** I'd have to take that on notice.

**Mr CLAYTON BARR:** We are led to believe that, back in 2015-16 when the original business cases were being put together, the different service agencies agreed that that original \$400 million, which would only cover 45 per cent of land and 96 per cent of population—we are led to believe that the ESOs jumped on board and supported that and agreed to that. I know it's before your time, but it just strikes me that only 45 per cent land coverage for New South Wales police would not be where you want to be or where you already were.

**STACEY MALONEY:** I'd have to take that on notice but I would say that, from a wireless network group perspective, they have always taken the position that our network was going to be significantly better than what was going to be delivered in the PSN.

**Mr CLAYTON BARR:** Do you have any idea, with your 590 sites, what percentage of the land of New South Wales gets coverage on your network?

**STACEY MALONEY:** We do have that. I'd have to take that on notice. I don't have that with me today.

**Mr CLAYTON BARR:** If I'm to summarise New South Wales police's concerns with the proposed new network, are encryption, total land mass coverage and interoperability the concerning points at the moment?

**STACEY MALONEY:** Ours is encrypted. The police radio network is encrypted, presently. Going forward, I think there's a different view from ESOs around encryption and then how that is to be managed. There is interoperability now; we are able to talk to the other ESOs using our network. So, going forward, it's probably just an advantage in that the PSN's going to deliver to ensure in-building coverage, location services, further interoperability—probably more so with the other ESOs than us. Currently with the PSN in the northern part of

the State, we are able to have interoperability with the government wireless network in QPOL or Queensland, and the plan in the future would be to also be able to have that down in the southern States with Victoria.

**Mr CLAYTON BARR:** Does New South Wales police continue to use the pager system?

**STACEY MALONEY:** No.

**Mr CLAYTON BARR:** So that's RFS specific.

**STACEY MALONEY:** Yes.

**Dr DAVID SALIBA:** I have some follow-on questions. In terms of these dual systems, I'd imagine that's not the best case—say in 2027 there's no or minimal migration. Has there been any assessment pertaining to cost or ongoing costs relating to that? You probably wouldn't know that now, but just on notice—unless you know it.

**STACEY MALONEY:** On notice, yes. It's certainly something that we are looking at because, at the moment, it's subscription based. If we looked at, for example—and the NPP had three recommendations put forward, and I'll offer that to the Committee, of course. But certainly one of the models would be that subscription basis, which would require our specialist commands that are currently using the network at that \$1.6M at the moment, and then we would have to consider the Greater Sydney area cost for the use of the PSN, and then the maintenance and ongoing operations for the rest of the State using our police radio network. So it would come at a cost. However, I'll take that on notice to ensure—in terms of a comparison to what would be required for a core user fee, that's what we would compare it to.

**Dr DAVID SALIBA:** I haven't used the system, but I'd imagine that would be pretty difficult with respect to, say, a constable being able to use all these dual systems. Is there a significant training liability there? Does it affect operations? Basically, is it practicable?

**STACEY MALONEY:** We have commenced a trial with the Cumberland Police Area Command on the PSN because they have a standalone radio channel. That's only just in its infancy. But you are correct: In terms of the change management, it is significant and it is something that we're focusing on. However, it does deliver improved radio communications for the Greater Sydney area. So that would be the focus—that we would target that Organisational Change Management (OCM) just for the commands within south-west metropolitan, north-west metropolitan and central metropolitan region.

**Dr DAVID SALIBA:** Finally, in terms of the fixes—on notice, if it is possible to send—what fixes does the Government need to do to ensure that we maximise the probability of migration?

**STACEY MALONEY:** I think the migration will definitely occur if the CCEP is fully delivered. So if those 700-plus sites are delivered, there's no question of migration.

**Dr DAVID SALIBA:** How do we maximise the same, if not better?

**STACEY MALONEY:** I would be confident that on the delivery of those sites, that would be the same, if not better.

**The CHAIR:** I might ask a follow-up question to David's, Assistant Commissioner. You mentioned new technology and that you were investigating new technology. What are your insights into best practice in other police forces around the world or across Australia? What's best practice in terms of communications technology now and which direction do you think that's going? Do you think it's likely or probable that, come 2027-28, in three years time, if there is a stronger technology, there would be a reasonable case for New South Wales police to say, "This is so important for our operations and for safety, we're going to adopt an entirely new technology"?

**STACEY MALONEY:** Yes, it's a great question, and certainly something we explored with the proof of concept in terms of Low Earth orbit (LEO) satellites. We certainly did our research speaking with our colleagues in Western Australia. It obviously has similar geography, and they were of the same view. I think Mr Rogers previously said that the costs have come down significantly for the use of those satellite services. The emerging technology in that space is moving at a very fast pace. We do, however, think, as we said, that that P25 network will still always provide redundancy and a BCP, in the event that other technologies are not mission critical. At this stage, the P25 is, and that is something that we certainly always look to, to ensure community safety and the safety of our people.

**The CHAIR:** The P25 is your existing radio network. Is that correct?

**STACEY MALONEY:** Correct.

**The CHAIR:** Could it be conceivable, then, that the PSN will be the core redundancy network, even with the adoption of new technology? Basically, the PSN takes the place of the existing police radio. So it won't ever be completely thrown in the bin, but you'd have layers of additional technology on top of that?

**STACEY MALONEY:** Correct, to ensure further redundancy, and those other emerging technologies can support it.

**Ms JENNY LEONG:** To that point, Assistant Commissioner, given the challenges that we're talking about, I appreciate your reference to Western Australia and the challenges around remote and regional New South Wales. In terms of the current capabilities of New South Wales police in comparison to NSW Ambulance or the RFS, and looking to having improved, better technology and capability on top of that, that would only be within the New South Wales police system. Currently, you're looking at a situation where the move over fully to the PSN would be if it was the same, if not better. My guess is for NSW Ambulance and the RFS, they're already at a better point than they currently are, or do you see that there are similar concerns with other agencies as well?

**STACEY MALONEY:** From my experience in conversations with the other ESOs, there are similar concerns.

**Ms JENNY LEONG:** Going back to the fact that New South Wales police have arguably the most advanced communication technology so far in the State under the ESOs, still the concerns that you would have in terms of the rollout in regional areas would be the same for others also, at least as far as you're concerned?

**STACEY MALONEY:** Yes—other than to say, if it's delivered, it should be fine. But the concern is that it's pushed out further and further, and then we're still left maintaining networks and adopting emerging technologies because there is the need.

**Ms JENNY LEONG:** Yes. The other question was just to follow up on Mr Roberts' comments about the in-building challenges. I appreciate you said that the Telco Authority is looking at potential advice to government around that in relation to new builds. But, obviously, there's a lot of existing infrastructure that doesn't comply. Has that been a priority conversation in terms of discussions between New South Wales police and the Telco Authority, and in relation to that, what recommendations would you have around that? Because, in a sense, we're looking at this as a big-picture issue of what happens with business cases, and this inquiry is looking into the decisions and delivery of major infrastructure. But at the same time, we are in the middle of spending an enormous amount of public money on communication technology. So what would be your recommendations around ensuring that that wasn't just for new builds, and where does that sit in terms of current scope of the project and priorities?

**STACEY MALONEY:** That was exactly the intended purpose for the Greater Sydney area collaboration between us and Telco Authority: to specifically focus on that in-building coverage, because we knew that was going to deliver a lot of capability not just for the New South Wales Police but also for Fire and Rescue and NSW Ambulance. As I said, we hold meetings every month around how that is progressing. Our people have certainly assisted TA in engaging in that in-building coverage testing, and I know that that is very much a focus of the TA in terms of ensuring that delivery, hopefully by December 2024, which is the plan. Then we would like to ensure that we would start that GSA migration by New South Wales police at least before March 2025.

**Mr CLAYTON BARR:** Assistant Commissioner, could I ask probably a bit of a dumb question, I'm sorry? You've made mention of the acronym BCP a couple of times today.

**STACEY MALONEY:** Business continuity plan.

**Mr CLAYTON BARR:** Thank you. You've got to ask all the questions, right?

**Dr DAVID SALIBA:** Just testing, Assistant Commissioner.

**Mr CLAYTON BARR:** No, this is knowledge for me.

**STACEY MALONEY:** Equally, reliability and availability is the focus. But, certainly, if we had to revert to a BCP, then our P25 will always be a part of that.

**The CHAIR:** Thank you very much for appearing before the Committee today. You will be provided with a copy of the transcript of today's proceedings for corrections. The Committee staff will also email any questions taken on notice from today and any supplementary questions from the Committee. We kindly ask that you return these answers within 14 days. Thank you very much.

**(The witness withdrew.)**

**(Short adjournment)**



**Mr ROB HILDITCH**, Executive Director Information Technology, CIO, Information Technology, Fire and Rescue NSW, sworn and examined

**Mr PAUL BARNES**, Director, IT Operations and Communications, Information Technology, Fire and Rescue NSW, affirmed and examined

**Mr MATTHEW WORMALD**, Chief Superintendent, Operational Communications, Fire and Rescue NSW, sworn and examined

**The CHAIR:** I welcome our next witnesses. Thank you for appearing before the Public Accounts Committee today to give evidence. Can you please confirm you have been issued with the Committee's terms of reference and information about the standing orders that relate to the examination of witnesses?

**ROB HILDITCH:** Yes, we have.

**MATTHEW WORMALD:** Yes.

**PAUL BARNES:** Yes.

**The CHAIR:** Do you have any questions about this information?

**MATTHEW WORMALD:** No.

**ROB HILDITCH:** No.

**PAUL BARNES:** No.

**The CHAIR:** Would you like to make a brief opening statement before we begin questions?

**ROB HILDITCH:** Thank you for the opportunity for Fire and Rescue to address the Public Accounts Committee. Last financial year, Fire and Rescue NSW responded to over 130,000 emergency incidents. Every one of those incidents relied on radio communication to provide communications between the teams on the ground and our communication centres, and this would be via the Public Safety Network where available. Fire and Rescue has used the Public Safety Network since its inception as the Government Radio Network in the early 1990s and has been one of its strongest supporters. We were the first agency to migrate onto the newly constructed north coast network just prior to the Lismore floods in 2020. During this event, we experienced no interruption to our communications due to the work of the Telco Authority in communicating the status of the network and maintaining availability through the deployment of generators and mobile sites as sites started to fail due to power outages.

Where the Public Safety Network does not provide coverage, Fire and Rescue NSW operates its own private mobile radio networks. These networks originally consisted of around 120 sites but currently have remaining 60 sites as the Public Safety Network has expanded. The remaining sites, around the south-west of the State, were built around 2016. They are nearing end of life and will continue to operate until the Public Safety Network expands in that area with the completion of the CCEP. Once completed, the program will increase the Public Safety Network coverage to reach 85 per cent of the State's landmass and 99.7 per cent of the population.

As the final piece of Fire and Rescue's coverage solution to maximise connectivity for those landmass areas not reached at the completion of the Public Safety Network, Fire and Rescue has recently deployed an "always connected" solution in our vehicles that utilises 4G carrier and satellite networks when the two-way radio network is not available. This solution also provides a data capability for our automatic vehicle location devices and mobile data terminals, as well as via a wi-fi hotspot for commanders' tablets and calls via wi-fi. We have seen communications regularly being identified as a major issue during catastrophes—most recently in the report into 2019-20 Black Summer bushfires and the more recent report into the 2022 Lismore flood inquiry. This network lived up to its expectations during the Lismore floods, and we expect it to do so during the next catastrophe.

We caution, though, that this is not a time to relax for Fire and Rescue NSW. The Public Safety Network under the CCEP needs to be completed, and we, Fire and Rescue, have ongoing issues to find solutions—for example, ongoing funding for equipment funded through the Stay Safe and Keep Operational program; a multi-agency paging network that can take advantage of the investment into the Public Safety Network; and solutions for in-building coverage. We also need to be prepared for the Public Safety Mobile Broadband network and the benefits that this increase in data capacity will bring to our frontline workers. I'm joined here today by Mr Matthew Wormald and Mr Paul Barnes, representing both our operational and administrative side of two-way radio communications. We look forward to addressing any questions you may have.

**The CHAIR:** Thank you very much. Before we begin the questions, I wish to inform the witnesses that they may wish to take a question on notice, and we ask that you provide the Committee with an answer within

14 days of receiving the questions. Given that the delivery of the CCEP has been significantly delayed, could you share any insights about how this delay has impacted your operations?

**ROB HILDITCH:** For us, as I said, we have upgraded our private mobile radio networks that aren't quite covered by the PSN yet, so in terms of response, they're still covering it for us. Paul or Matt, would you like to add anything?

**MATTHEW WORMALD:** From our perspective, whilst they are less than ideal, the delays haven't been a show stopper for us in terms of our ability to maintain capability. That includes through the provision of the Stay Safe and Keep Operational funding, because that has provided us with sufficient funds to be able to keep our networks alive until such time as the PSN has been available. That being said, it also is a case for us, as an agency, where we will migrate into areas away from our Private Mobile Radio (PMR) networks and onto the PSN as soon as an area has got blanket coverage so that we can maximise utilisation of the better infrastructure that's provided through the PSN as quickly as possible.

**The CHAIR:** Are there areas that are covered by the PSN or the CCEP that are not currently covered by your existing radio network?

**MATTHEW WORMALD:** Yes, there are. Basically, part of our process in terms of managing infrastructure and avoiding confusion on the networks is, as we fully migrate an area onto the PSN, we will actually take steps to decommission our private mobile radio networks in that area.

**The CHAIR:** I guess my question was whether you were expecting new areas of coverage to come online with the CCEP and banking on that but, because of the delay, they haven't been able to come online, and whether that has meant that you've had to expand the coverage of your existing radio network or you've just had to live with the fact that you haven't had coverage in those areas.

**MATTHEW WORMALD:** We've continued to persist with our equivalent coverage that we have available through our networks. One of the benefits that PSN provides is that it does expand our coverage. As a largely urban fire service, our operating model is predominantly around the towns more so than out of the towns, which generally are afforded by better coverage through our networks and a much narrower, I suppose, area of coverage than the PSN ultimately provides. I would point out, too, that we do recognise that, due to the limitations of our PMR networks, we have traditionally provided alternative communication methods within our trucks, such as mobile phones and satellite phones, to counter those limitations in coverage that our networks have provided.

**The CHAIR:** That segues into one of the limitations, I think, of the PSN, which was this whole issue of in-building coverage and the limited in-building coverage. You just said that you have alternative technologies—mobile phones and probably the internet, being that you operate in cities and towns. Do you have any insights as to, when you switch across to the PSN, whether that coverage would become better or would it become worse? Would you maintain the mobile coverage and the other technologies simultaneously with the PSN so that operations aren't impacted?

**MATTHEW WORMALD:** In-building coverage has always been a challenge for us as an organisation, particularly if you look at some of the complexities around the building code and the location of some of our key building systems for us to respond to as part of our operations. The fire control rooms are typically in your basements or hard-to-access areas that are in, essentially, concrete bunkers. We've got similar issues with a lot of our tunnel infrastructure that we've got throughout New South Wales as well. So propagation of radio has always been a challenge for us. A big part of what we have traditionally and historically done is to not rely on PSN for things like in-building coverage but more for our wide-area communications, so from our vehicle back to our communication centres. Where we've had requirements for in-building coverage, we've actually relied more on what's called simplex or direct mode communications, which is point-to-point between the radios as opposed to relying on the existence of a network such as the PSN.

**The CHAIR:** If that is the case, Mr Wormald, what are the real benefits of the PSN or the CCEP to your organisation?

**MATTHEW WORMALD:** The benefits are quite wide and varied. It's everything from—if you look at our regional areas, it provides enhanced coverage that we don't currently have today, bearing in mind that our PMR networks are generally very site specific, as I previously mentioned, with regards to our regional centres. It also provides a much greater capability in terms of talk groups. So, again, if we look at our private mobile radio networks, we typically only have one channel available that can be communicated on in those regional areas and that's just due to a design and infrastructure cost associated with that. The advent of PSN in those areas will provide multiple talk groups available for our staff to utilise.

**Ms JENNY LEONG:** Can I clarify, are you saying talk groups?

**MATTHEW WORMALD:** Talk groups.

**Ms JENNY LEONG:** Sorry, I thought there was a code I wasn't understanding.

**MATTHEW WORMALD:** No, talk groups—channels, for want of a better term. Bringing the PSN into these areas means that our firefighters have a suite of channels available to them. They can create more tailored communications plans that provide benefit and clearer communications; instead of it just being a free-for-all on that one channel, we've got multiple channels that we can break the communications down. Another benefit is the interoperability piece. We saw issues or challenges during the Black Summer fires where Fire and Rescue crews were deployed into remote areas of New South Wales that were only serviced by Rural Fire Service radio networks, for argument's sake. With the PSN providing that coverage into those areas, part of the operating model is that there are clearly defined and well-known interoperable talk groups available to the agencies. They're all preloaded in our radios. So straightaway we've got enhancements there. It also provides benefit in terms of we can integrate the PSN into other networks. We've got connectivity now with Queensland where we can have our radios seamlessly interoperate and roam into Queensland coverage. We can also connect the PSN into other foreign systems that we've got. The list goes on.

**Mr CLAYTON BARR:** Foreign systems?

**MATTHEW WORMALD:** Foreign systems in terms of it's foreign to the PSN. By way of context, the Queensland radio network would be considered a foreign system, because it's foreign to the New South Wales PSN.

**The CHAIR:** Not necessarily overseas—not like the Kiwis.

**MATTHEW WORMALD:** Not overseas, no. Sorry, it's radio lingo.

**Ms JENNY LEONG:** A different sense of foreign to how it may be used in a political context.

**Dr DAVID SALIBA:** With forecasting pertaining to decommissioning of existing sites, networks et cetera, do you anticipate that to occur in 2027?

**PAUL BARNES:** Yes. Based on the figures we've been given from the Telco Authority around the conclusion of the program, between six and 18 months later for us to then decommission all our sites.

**Dr DAVID SALIBA:** Effectively, Fire and Rescue will be focused on one—no multi-tiered network, so to speak.

**PAUL BARNES:** Yes.

**Dr DAVID SALIBA:** We were speaking to the police earlier on. They're all about saying "if not better". Pertaining to your agency, do you find that the CCEP is the same if not better relative to your existing systems?

**PAUL BARNES:** Yes.

**Dr DAVID SALIBA:** Are there any limitations or any improvements that we could make with respect to the CCEP moving forward up until 2027?

**ROB HILDITCH:** In what sense, sorry?

**Dr DAVID SALIBA:** Any improvements? It's the same if not better, but is there anything we could do to make it better?

**MATTHEW WORMALD:** I'll jump in. From my perspective, there are a couple of things. One is the technology, in terms of CCEP, has been a number of years in the making. There have been challenges for us to get some of the integrations into the Queensland network to improve our interoperability. We've seen with the likes of the floods and the fires over recent years that they don't stop at the border. Similarly, our crews don't stop at the border, so our ability to traverse those borders and yet maintain interoperable communications is critical for providing situational awareness, crew safety and accountability. Our ability to have CCEP acknowledge that it's more than just the New South Wales network and that the interoperability piece is bigger than just the scope of New South Wales is something that I think could be leveraged moving forward.

**Dr DAVID SALIBA:** How do we deconflict there? There's a border and there are various assets being deployed—for example, in New South Wales and Queensland or in New South Wales and Victoria. What is the current deconfliction process? Is it, basically, using both systems? Is there a conduit?

**MATTHEW WORMALD:** A case in point was, again, during the Black Summer fires, through a resource request and a resource-sharing arrangement, we had interstate vehicles deploy into metro Sydney to provide fire coverage due to our resources being deployed elsewhere. In that scenario, we had technicians

swapping out radios. We were taking the Queensland radio out of the truck and installing a New South Wales radio. Then, at the other end of that deployment, we were having to reverse that process.

**Dr DAVID SALIBA:** Would there be an economic argument for a national approach to this as opposed to a State-based approach?

**MATTHEW WORMALD:** If we were to talk economics, I think the economic national approach would be public safety mobile broadband, which would cater not only for voice communications but also mission-critical data.

**Dr DAVID SALIBA:** Can you elaborate on that?

**MATTHEW WORMALD:** The focus of CCEP and the Telco has been on voice communications, and rightly so. Because, at the end of the day, my crew's ability to get a message out of a structure fire to the truck or to the communications centre is the absolute must have. But what we're increasingly seeing now is a shift towards data, in terms of people want to know the information about the fire that is happening, right now. They want to be able to stream it, look at it and all that sort of stuff. So we're shifting away from a voice-only focus to data. Public safety mobile broadband, which is in flight via the Commonwealth at this point in time, provides a level of mission-critical data to emergency services, such as Fire and Rescue NSW. The ability of something like a PSMB is that it provides that data capability. But, within that data, we can package up the voice and still transmit the voice in the same mechanism.

**Dr DAVID SALIBA:** I'd imagine this would evolve, so from 2016 to, say, 2024 and probably up to 2027, the New South Wales police were saying. A technological generation is about 10 years or so, in terms of telecommunication stuff. I'd imagine that as we evolve, in terms of your appetite pertaining to your data needs, we're probably going to need that now if not later. In terms of these steering committees and your work with the NSW Telco Authority, has that feedback been pumped there with respect to leveraging Federal assets to bolster your user requirements?

**MATTHEW WORMALD:** Yes, absolutely. Did you want to talk to it?

**ROB HILDITCH:** No, because you sit on the steering committee yourself.

**MATTHEW WORMALD:** Absolutely. We have been vocal around that because we recognise that society is changing and for us to best serve the communities that we protect, we need to evolve with them, absolutely.

**Dr DAVID SALIBA:** Is it possible then that we're going to come up to 2027, 2027 kicks in, there is this migration that occurs and decommissioning of existing sites in terms of all the different combat agencies, and then the next conversation would be, "Hey, federally, what you're talking about here in terms of not just voice but the other data streams needed"? Is that going to happen or is that happening?

**MATTHEW WORMALD:** That's happening now.

**Dr DAVID SALIBA:** The only reason why I ask is I imagine that we have spent \$2 billion on something that effectively is going to be produced in 2027, and rightly so too. If I was a firefighter, I'd want to know the data, the streaming data, the visuals as opposed to voice. I guess it reinforces this point that I'm thinking that this CCEP is better than your existing system but not fit for purpose pertaining to 2027 firefighting capabilities.

**MATTHEW WORMALD:** I respectfully disagree with that, and part of the reason that I say that is that we very much take a multilayered approach with all our technologies just like we've existed successfully to date with having a mobile phone and a satellite phone and a radio in the truck. That will carry forward post-2027. Where we need to maintain that voice communications, there will be other instances where providing a layer over the top of data and biometrics and other data sources will provide a value-add, but at the end of the day, that mission-critical voice is still so critical for us, until such time as those technologies have potentially matured. But it's one of those things where we need something now. We've needed something now for a large number of years, and I also acknowledge that what CCEP provides to us particularly regionally is still way beyond what we have today and will persist well beyond 2027.

**The CHAIR:** Could I quickly ask a follow-up question. You mentioned before that often where you operate are in basements and bunkers where there is no mobile coverage and no radio coverage. Is there a technology that can operate in circumstances like that where safety is critical?

**MATTHEW WORMALD:** It's an interesting question that you ask. One of the challenges that we've had, and part of the direction of the team, has been to look to what else we can be doing to supplement and what else we can be doing to improve firefighter safety, so looking at things like wi-fi networks inside buildings, looking at meshing devices. We're looking at a range of technologies that can actually provide us that ubiquitous

coverage but do so in such a way that we're utilising multiple technologies. But to the end user, it's still largely seamless in terms of their radio; all they have to do is push the big button on the radio and it will still key up and they'll still be able to get the message out, irrespective of whether it is going out via the PSN or wi-fi or whatever else. It is seamless to them. If you think about it from a firefighter's perspective, that's exactly what you want. You want them concentrating on the fire and not going, "Have I got my radio or do I need my mobile phone?", or anything else like that.

**Ms JENNY LEONG:** Can I follow-up on that because I guess that sounds like quite significant scoping in terms of what would be beneficial. To that and the element around the paging network—which I understand was initially in the scope and has now been taken out but has been identified as an ongoing need for yourselves and the RFS, if not other emergency service organisations—I wonder was the need for looking at other ways to address the in-building capabilities ever put forward as part of the scope? Then I guess the other part of that was what involvement did you have in the developing of the scope and the decision to take the paging network out of that scope? I'd be really interested to know how that happened and, I guess, where the decisions were made around the removal of that scope because it sounds like it's still a key need for yourselves.

**MATTHEW WORMALD:** I can talk to the in-building coverage piece. I might defer to Paul with regards to what was in scope and what was out of scope. In terms of developing the requirements and the consolidated requirements, all of the ESOs had significant input into the development of that, and it was quite an extensive body of work to bring in each of the agencies' respective needs. That was done and it was done, I felt, quite successfully. That being said, there are always challenges in terms of my needs from a Fire and Rescue perspective are different to SES because they don't have to enter the same buildings that we do. There will always be challenges from that perspective.

In terms of the alternative technology component and looking at what else is out there, the conversation has been on and off, if I can say that, at various points, partly due to our appetite as an organisation to do that with competing priorities, potentially partly to do with the NSW Telco Authority. I do think, though, that the relationship is very good at the moment in terms of looking at what else can be done, particularly acknowledging that the concept of complete blanket in-building coverage is financially unattainable. It's about what the other options are that can be explored that are financially viable but also provide what we need as an end user. Those conversations are progressing, and we are heading down the path of multi-agency buy-in on some of those initiatives. So I think the collaboration is there.

**Ms JENNY LEONG:** Before we move to yourself, Mr Barnes, in terms of that collaboration and those conversations, where is that happening? Who is involved in those conversations? Is it a regular meeting of a committee process? How does that help? Are you sitting on that or are other representatives sitting on that?

**MATTHEW WORMALD:** It largely depends on what's being discussed. In terms of CCEP and the governance structure around the Telco Authority, yes, I sit in a number of forums within TA, as do my colleagues from the other ESOs. In addition to that, though, we do also have our out of session discussions, if I can say it that way, in terms of the ESOs will get together, operationally or just as part of our own regular catch-ups, and have discussions. At the same time, there are also one-on-one conversations that happen as well. That probably goes to the point of we have our own individual flavours, or requirements, so it's a lot easier for me to have a conversation with Telco about in-building coverage when the Rural Fire Service or SES don't necessarily need to be part of that and it is bit of a time waste, if I can put it that way.

**Ms JENNY LEONG:** Mr Barnes, did you want to come in?

**PAUL BARNES:** Sure. We had been working with the Telco Authority regarding the potential for a shared paging network. I think some of the problems that the Telco faced was that our paging network is co-located at our fire stations and is integrated in with our turnout systems. So, therefore, even if we removed the paging component from that, we still need our turnout systems.

**Ms JENNY LEONG:** Can you explain what a turnout system is, sorry?

**PAUL BARNES:** The turnout system is once a 000 call gets raised and a particular fire station is identified as the station that needs to attend to that incident—

**MATTHEW WORMALD:** Sorry, it's the alerting system to the fire stations to let the firefighters know there is a call they need to respond to.

**PAUL BARNES:** It sets off the bells and things like that. That's all integrated, and therefore because our firefighters live in the area of the fire station, usually a paging antenna on top of the fire station is sufficient. There are more and more firefighters that live further and further away. It made sense to us to have a wider area paging network to be able to call firefighters to those fire stations. But the business case around moving Fire and

Rescue to a shared network was difficult to show on paper, I guess. We saw the benefits of it, but from a financial perspective, I think it was difficult. The discussions we were having with Telco at the time was to use the Rural Fire Service replacement network as the backbone for the business case to co-locate paging with PSN sites, the benefits being single licence agreement, one visit to a site for preventative maintenance so the ongoing costs should have been maximised or minimised—the costs minimised but the savings maximised.

I think there was a lot of difficulty in trying to show the benefits around that business case. They struggled with that for a little while, and they were still working with their PSN and the delays, as we're aware, with the PSN and a lot of their focus was on the PSN. I think when they got round to working through the issues with the paging network, the business case didn't match in with where they were in the rollout of the PSN, and so there was a decision there to say, "Let's treat this separately. Let's present this as a standalone business case after."

We also identified the potential start-delaying components of the PSN if we started trying to integrate a paging network in that rollout, so we agreed to address it separately.

**Ms JENNY LEONG:** Just to clarify, the scope changed and removed that paging network. The cost is, I think, close to five times or more what the initial scope cost was going to be, but the business case is delivering less than what was originally scoped. Has scoping work been done on what that integrated statewide paging network would cost in addition to what has been done?

**PAUL BARNES:** The 2016 business case was very early days. We had a very large scoping requirements gathering process in late 2017, and we ended up signing off those requirements in 2018. Once the Telco got those requirements—and this is for the PSN—for the two-way radio, that was when they realised the complexity and the size of what they needed to deliver. You would probably see quite a large jump between the 2016 and the 2019 business cases, because by that stage they'd got our statement of requirements and there was a big effort to put all the agencies' different requirements into a single document.

**Ms JENNY LEONG:** So you weren't involved in the scoping of that initial 2016 business case? Sorry, not you personally.

**PAUL BARNES:** I was aware of it. My understanding was that it was for around 45 per cent coverage of the State. It was a lot smaller, likely because a lot of the police requirements may not have been included or were not fully understood in that.

**Ms JENNY LEONG:** I appreciate that the requirements expanded and changed, and that's going to change costs and whatever, but I'm also concerned that we've lost some of the scope, which was identified as part of the requirement. So that will be a future project. Are you aware of which agencies fed into that initial business case scoping that would have allowed for a cost?

**PAUL BARNES:** It would've been through the equivalent of—it's changed names quite a few times—the program steering committee for the CCEP.

**Ms JENNY LEONG:** And then that would have still existed.

**PAUL BARNES:** And SES and RFS and ourselves were part of that, and always have been for the CCEP.

**Dr DAVID SALIBA:** It brings about a slight limitation in the sense that you've got such a protracted project for a whole array of stakeholders—but even within those stakeholders there is a changeover of staff, given rotations in the chair, so to speak—to find out exactly what happened in 2016 and the flow-on needs analysis that would've evolved. Then someone would've come into the chair and said, "All right. It's 2024. Come again? I don't know the history behind it." Then, by virtue of that, we're missing that loop in terms of some of the initial scoping work that's perpetuated to the point we're at now.

**The CHAIR:** It remains a mystery to us. As we've said a number of times, it's not a matter of a 30 or 40 per cent cost blowout. It's a 500 per cent cost blowout. Do you have any insights as to why the original business case was so far off the mark? Presumably, there was input from the ESOs into the original business case process. How was it so far off the mark?

**PAUL BARNES:** I've been there from the beginning. To build a single PMR agency network is a completely different beast and the scope of the work to build a multi-agency network was possibly not fully understood at the get-go. We also know that they didn't get that clear set of requirements until the beginning of 2018. That was when they probably would've settled on how much coverage they required. In the metro area we had probably 50- to 60-odd sites. The New South Wales police would've had roughly 110 to 120 sites in that same area. That's when they went back and redesigned a lot of the metro area because they realised that's what they needed to do in order to get police on the network. From our perspective, there was almost a standstill of a couple

of years while they improved the coverage. We got better in-building coverage density and some of our blackspots within the metro area would've disappeared because of the density of sites. So we gained from that, but overall coverage of the State didn't really change very much in some of those early years.

There were also a lot of technology changes within the core equipment. They had to touch every existing GRN site in order to upgrade. You may have heard of the term "phase two". They moved from phase one to phase two. Phase two is a lot more spectrally efficient. It can create two channels where we used to have one channel, and that spectrum is critically important in order to get the capacity and the density of sites required to bring police on. They needed to move to this latest technology in order to get the capacity that they required for the design of the network. That was still quite difficult. They've also included a simulcast design, where multiple sites use basically the same frequency and all work together. Again, that's an increasing complexity of design and in cost for the amount of equipment required to achieve that at sites.

There was a lot of work in working with police to get them on board. There were a lot of times where we didn't hear a lot from the Telco but we knew they were working with police to understand their requirements and what they needed to do to get the police on board. Then, with the complexity of site, getting onto sites is always difficult—private landowners access. If you think there's a site here that RFS is on as a volunteer organisation, they may have had a peppercorn rental. The NSW Telco Authority takes over that site and now is trying to find a site for 60 agencies of the Government. They're not going to get onto that site for a dollar. So those negotiations would have been quite protracted.

Lastly, they had a lot of staff turnover and finding staff with specific land mobile radio—which is technology we're using—experience was possibly also causing some of those delays in the early days to find people, or at least to get people and then bring them up to speed with the technology and also with emergency services experiences as well compared to, say, a carrier network. If you bring someone in from Telstra, that business way of thinking is quite different to working with emergency services within government.

**ROB HILDITCH:** If you look at the timing of the requirements being finalised, and at that point going from 4 to 5 per cent to 85 per cent coverage, and all the things that Paul just said about increased complexity of the technology, that led us straight into the 2019-2020 bushfires, which had a major effect on everybody. When we have a major event like that, big projects like this slow down and you can only do so much while you're working on a major disaster like that. The bushfires finished.

A couple of weeks later we had the Lismore floods and then a couple of weeks later COVID hit. COVID had all sorts of challenges around supply chain issues and so on and so forth. To be fair to the timeliness of the increases in costs, it would've been a protraction at the time to deliver this, and a lot of that was a result of natural disasters and the implications of COVID. Even the natural disasters affected sites that were to be acquired or to be used and the time to fix them, because sometimes a landowner doesn't want to fix it as quickly as the Telco Authority need it to replace a site. So there was a lot of impact on the overall time frame, hence cost, during that period of the bushfires and then COVID.

**The CHAIR:** That's very helpful. In the future, when government agencies need to do complex, technical IT-related projects and implementations, what would you say are the lessons that we can learn from this?

**ROB HILDITCH:** I think the thing we need to do last but first is we really need to have a well-constructed post-implementation review of the whole program, from its inception in 2016 and through its morphing into what was a much bigger program a few years later. That implementation review will be really important. That will factor in everything like technology changes, how we acquire sites and how we do it. We'd say get the scope set in stone and agreed to quicker when we do a major project like this, because with the police coming in a bit later to maximise investment for the State, that sort of moved the goalposts a bit. So if we can agree who is in scope at the beginning—it did take a couple of years to really nut out and lock down the requirements with all of the emergency services.

If it is another program like this—a big technology program affecting emergency services—it's really important that we recognise the specific nature of those agencies for the Telco Authority building the consumer network. We have different types of requirements. I would say we have to make sure we get the scope agreed, nitted out, understood and signed off much quicker, and then get the requirements first before we commit to saying, "It'll cost \$400 million." You actually need to get estimates to get moving on major programs. Maybe it's an understanding a bit like the Digital Restart Fund. There was some seed funding, and then you would move to scale. I think we need to understand sometimes, as big as this is, how would you look at seed and understanding the scope and requirements before you move to the full cost, the business case and signing that off?

**Ms JENNY LEONG:** Going to the evidence we heard earlier from the New South Wales police that they're not one of the identified core users of the project, and given the intention of this to be an integrated communication system for critical communications agencies—that, I think, is why we have seen a willingness by successive governments to continue on with the project despite significant changes to the scope and the cost blowout—I'd like to ask you about what you see as the potential risks to the benefits of this program when it is fully delivered if the New South Wales police didn't come on board. The second part of that question is are there some current things that are being delivered, or may not be delivered, within the CCEP that would see Fire and Rescue make the decision to not make the full transition over?

**Mr CLAYTON BARR:** There are a lot of hypotheticals there.

**Ms JENNY LEONG:** No, there's a risk. We've heard from the New South Wales police that unless they have seen that the system is the same, if not better, than their current communications technology, they won't come across. As I understand it, one of the significant benefits of this project overall was to allow emergency service organisations to be able to communicate across service organisations. I'm asking, from Fire and Rescue's perspective, what would you see is the risk if the New South Wales police didn't come across?

**MATTHEW WORMALD:** From my perspective, the advantage that it provides is the coverage, the additional talk groups and the capabilities that it has got—the availability of narrowband data to transmit things other than voice. To answer one of your questions about would we reconsider whether or not we join if the police weren't to come across, the answer is no. We're fully on board with this, irrespective of the other agencies, because of the benefits that this provides to us as an agency. Taking that one step further, the interoperability component of that, acknowledging if there was a scenario where the police weren't to come on board, that still gives us interoperability with the other ESO partner agencies with which we partner on a day-to-day basis, as well as the other public safety agencies as well. Let's not forget that there are other users of the PSN out there who will also be able to leverage the CCEP that aren't one of the big five emergency services. Our ability to communicate with them in a seamless fashion is just as important to our crews.

The other advantage that it provides us in terms of migration is that it is a cost saver to the organisation, because we will decommission all of our PMR networks. That does provide a saving in terms of it's less infrastructure for us to maintain. Whilst in an ideal world, yes, it would be great if the police came on board—and I'm not intimating that they're not going to come on board—we still see the advantage that the network provides, irrespective of them coming on board, because of the other agencies that are on board and because of the benefits that it provides to us. For what it's worth, in all of the meetings that I've been in, the police have been in the room for every single one of them. They have been just as vocal as every other agency there.

**Ms JENNY LEONG:** The reason for the question was very much going back to Mr Barnes's point in terms of who was in the room with the initial scope, how that's identified and the comments about how we can improve the situation to be looking at the scope being correct. To ensure that the scope is correct, you need to make sure you're determining who needs to be in the room to determine the scope and who are the core users and not. It was quite a surprise hearing that the police weren't identified as one of the core user groups, in the sense that the initial aim was to ensure interoperability. To that point, it's good to know at what point people need to be brought into that conversation to determine the correct business case and that the scoping is correct. Thanks. I appreciate that.

**The CHAIR:** Could I ask a clarifying question? You said that one of the benefits of the CCEP was narrowband data. I might've misunderstood earlier. The CCEP doesn't just allow voice; it also allows the transmission of data. Is that correct?

**MATTHEW WORMALD:** Very, very, very basic data. I'm talking about things like duress alarms on the radio, location of the radio and very basic things like that. It's not going to be able to support applications on smart devices or anything like that.

**The CHAIR:** The difference being narrowband data and broadband data. You would look to supplement the CCEP with broadband capability for streaming and whatever else?

**MATTHEW WORMALD:** Yes.

**The CHAIR:** Understood. Thank you for appearing before the Committee today. You will be provided with a copy of the transcript of today's proceedings for corrections. The Committee staff will also email any questions taken on notice today and any supplementary questions from the Committee. We kindly ask that you return these within 14 days.

**(The witnesses withdrew.)**



**Mr STEPHEN McROBERT**, Director ICT and Chief Information Officer, NSW State Emergency Service, sworn and examined

**Mr SHANE NEWCOMBE**, Senior Manager Communications and Field Support, NSW State Emergency Service, sworn and examined

**Mr CLAYTON BARR:** I'd like to welcome our next witnesses. For clarification, as Deputy Chair, I'm going to do the introduction and conclusion because the Chair needs to leave at four o'clock. Thank you for appearing before the Public Accounts Committee today to give evidence. Can you please confirm that you have been issued with the Committee's terms of reference and information about the standing orders that relate to the examination of witnesses?

**STEPHEN McROBERT:** Yes, I have.

**SHANE NEWCOMBE:** Yes.

**Mr CLAYTON BARR:** Do you have any questions about that information?

**STEPHEN McROBERT:** No.

**SHANE NEWCOMBE:** No.

**Mr CLAYTON BARR:** Would you like to make a brief opening comment before we start questions?

**STEPHEN McROBERT:** I'd like to set the context for why we're here. NSW SES is the lead agency for floods, storms and tsunamis, and we're all about saving lives and supporting communities. From the start, we've been fully committed to the PSN and the CCEP program. We're also fully committed to collaboration and interoperability between the agencies as a big focus of our strategy, noting that operational communications are critical to the way we do our business—not just how we manage incidents and events, but also the safety and the support of our volunteers when they're out on the ground. I'd like to finish with the importance of regional and remote comms. That is a critical focus for our agency, not as much the inbuilt type of coverage. For us, it's all about those remote and regional areas.

**Mr CLAYTON BARR:** Chair, before you disappear, I might throw to you for some opening questions.

**The CHAIR:** Thank you for appearing before us today. I think we all know that the CCEP program has been significantly delayed. One of the objectives of the inquiry is to understand what impact that has had on your operations.

**STEPHEN McROBERT:** As you know, the agencies have their existing networks, but the whole premise of the PSN was to cover the whole State for radio comms. The longer that has gone on, the harder it has been for us to maintain legacy networks and plug those black spots. But to combat that, and through the Stay Safe and Keep Operational (SSKO) funding that I think you're aware of, we've looked to not so much put money into our legacy networks but look to other technologies that allow us to fill those black spots. I'm proud to say we've led what we called the "vehicle as a node" technology solution at SES, which has put SmartConnect into our vehicles. That allows us to first access the PSN and, if it's not available, go to G networks and, if they're not available, go to satellites so that our volunteers have coverage across the State. That's where we've used the existing funding to complement the network and fill some of those risk areas that we have with black spot coverage.

**The CHAIR:** To be clear, these additional technologies would not be the base or the core technology to replace the radio network. They're additional layers of technology that—

**STEPHEN McROBERT:** They use the core of the network to transmit.

**The CHAIR:** Right. In the event that the CCEP was delivered in, say, 2027, would those technologies continue to operate?

**STEPHEN McROBERT:** They will continue to operate.

**The CHAIR:** I understand. From a cost perspective, do you have a sense of the additional cost that has been incurred by your agency in having to keep the legacy systems going?

**STEPHEN McROBERT:** As I said, our focus has been more on the innovation and the value-add technologies. But there has been money put into our existing networks in the hundreds of thousands. We can take that on notice to give you the detail. But, like I said, our focus has been on these other technologies rather than putting money into those legacy networks.

**The CHAIR:** You said at the beginning of your statement that you've been committed to the CCEP right from the start. Have you sensed that across the various stakeholders—the ESOs—there was that joint commitment to the CCEP? I don't know how long you've been in the role or whether you were there at the beginning.

**STEPHEN McROBERT:** I was there close to the beginning. I came in mid-2016, so that first body of work had already commenced.

**The CHAIR:** Was there a consensus that, yes, we really need this—that this is something we have to do or we need to do?

**STEPHEN McROBERT:** Definitely from the ESOs. From Fire and Rescue, RFS and SES, I think there was a strong commitment from the start that we needed this to happen. We shouldn't be in the business of managing networks. We need to be consumers of that service, not building our own networks. I think there was a strong commitment across those three agencies in particular.

**The CHAIR:** If New South Wales police came on board, there's a hypothesis that that would almost be the cherry on top.

**STEPHEN McROBERT:** Yes, but I think you heard in the submission earlier that we would've been going across anyway. When you think about the events we've been through—the bushfires and the significant number of floods since—police are always involved. So, obviously, if we're sharing the network, working across an event and all the incidents within that event, it is important that we're on the same network. It makes it a lot easier.

**Ms JENNY LEONG:** I appreciate that context. Given the focus we had in terms of hearing from Fire and Rescue, the initial business case and then the scoping happening afterwards, the requirements being articulated and then a significant change, and now what's seen as quite a delay and a cost blowout, it'd be great to have an understanding of at what point the SES were involved in those conversations, either predating your appointment or as a result of your—and to what level you felt you were able to give the full extent of the scope and needs at that initial stage, versus what the time pressures were to deliver on something quickly and then have a further requirement process down the track. I just can't quite comprehend why everyone was in the room and we had such a different process from 2016 to 2018 or 2019.

**STEPHEN McROBERT:** Again, coming into the room when I did, I think by then there was an understanding that we needed to do this. Whether the market engagement was in-depth enough and understood the true costs—but we were all understanding of some of the key risks around site acquisition and the impact of hazards on the build of these sites. I know it was articulated from the beginning that that would be a challenge for the program, and I think what we've seen is a blowout in costs, partly related to the fires, the floods and the impacts they've had on site access and site builds. And then, obviously, the costs in our lives today—everything is going up, and that has contributed as well. I feel that we've been in the room, but understanding what this would cost could've been better understood with a deeper market analysis at the time.

**Ms JENNY LEONG:** In relation to the paging network, that would've been one of your requirements that you were supportive of initially and within the scope. What involvement did you have within the decision to take that out of the scope of the project?

**STEPHEN McROBERT:** I think "out of the scope" was more a program decision, rather than ESOs. But more recently, obviously, we've come together, and the importance of whether we include that back in the CCEP program will go with a separate case. We all agreed that, at the time, it would be relevant to go with a separate case to address the paging needs of the three ESO agencies.

**Ms JENNY LEONG:** Were you simply informed by the program that it was now out of scope, or was there a—

**STEPHEN McROBERT:** I'd have to take on notice when it happened.

**Ms JENNY LEONG:** Great. I'd appreciate that.

**STEPHEN McROBERT:** But that was before the statement of work, the statement of requirements, was developed. That's when everything was re-scoped in 2018.

**Ms JENNY LEONG:** The context for this is having an understanding from a governance perspective on a project or program that is across different government agencies, across different Ministers.

**STEPHEN McROBERT:** Yes, I appreciate that.

**Ms JENNY LEONG:** It's good to have an understanding of how we can strengthen up those processes. If the program is making the decision without the people that originally identified the need, that becomes a challenge. Any information you have around that would be great.

**STEPHEN McROBERT:** Okay.

**Ms JENNY LEONG:** I have one more, and that was in relation to the real challenges and concerns around regional and remote coverage, which obviously the SES shares with the New South Wales police as something that needs to be looked at.

**STEPHEN McROBERT:** Correct.

**Ms JENNY LEONG:** You were just giving descriptions of what technology you're working on. The New South Wales police have their own communications systems. As it currently stands, how do the SES communications systems compare to New South Wales police in a regional and remote area? We've heard from the police that, while they're on board in terms of seeing it being able to transition in the Greater Sydney area, it's certainly not up to the same standard in regional areas or outside of Greater Sydney. I wonder how that relates for the SES and how your current communications systems are comparing.

**SHANE NEWCOMBE:** Our networks across the State were ageing. They were getting to the point where we had to make a decision to either replace the networks in their entirety or transition off them. In the Murray, Murrumbidgee and Snowy location we worked with Fire and Rescue and rebuilt that network because there were economies of scale and we were doing it together. The balance of our networks, we basically kept them alive until the point where we could transition off them and onto the PSN. With the added benefit that SmartConnect—or the vehicle as a node—has given our units, it has allowed our units to transition onto the PSN even when the PSN doesn't exist. We have our Far West units where the PSN has not been built yet, but they are operating on the PSN. We have users on Lord Howe Island utilising the PSN because of the SmartConnect capability. That has insulated us from the delays of getting that across the line.

As well as SmartConnect we have developed cells on wheels, or COWs. We built—under the SSKO program—our initial gen one COW. Subsequently we have built five gen two COWs, which is basically a PSN transmission site on wheels. It allows us to take it to where we need it, and that's addressing—as Steve said earlier, our requirements for coverage is more in the remote areas than the in-building coverage, so missing person searches up in the national parks where it's not cost-effective to build a continuous PSN network through an uninhabited national park. Unfortunately people still go missing in those national parks.

We built our COWs as tactical assets that can be deployed into those locations, spooled up, used and then packed back down and removed. The model we put forward hadn't been done before. It wasn't something we could buy off the shelf; we had to develop it from scratch. We have five of the assets and the Telco Authority now has 20-plus of the same capability, the same asset. Police, I believe, have 12. All the other agencies have leveraged the work we have done to build those assets. They are used to augment or replace nodes within the PSN.

**Ms JENNY LEONG:** The SES has some, the Telco has some and the New South Wales police has some. Can you all use each other's?

**SHANE NEWCOMBE:** Yes, absolutely.

**STEPHEN McROBERT:** Yes, they are whole-of-government assets. That was the intent from the word go. If we are the lead agency, we would decide where those assets go, as opposed to a fire, where the Rural Fire Service may take the lead.

**SHANE NEWCOMBE:** They are a TA-owned capability; they are just deployed by the agencies.<sup>1</sup>

**Mr CLAYTON BARR:** Gentlemen, just digging a little bit further into obviously the concern in the inquiry here, which is how we went from \$400 million out to something like five times that. When that first business case was put up, my understanding is that it was offering to cover 45 per cent of the land. Was that alarming and concerning to the SES, because you need more than 45 per cent?

**STEPHEN McROBERT:** It was certainly a concern, but I think the understanding was that there would be future cases that would look to expand on that footprint, noting too that that would have given us an increase

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<sup>1</sup> NSW SES requested the following amendment: The technical capability of the COWs is owned by the TA. NSW SES owns their vehicles and cell assets. The COWs are deployed by the agencies.

in coverage in some of our high-risk areas—Northern Rivers is an example. That was one of the key focus areas for us, and we have seen the importance of coverage in that area more recently.

**Mr CLAYTON BARR:** Early on, at that original \$400 million mark, it was reasonably clear to the PSOs that that might have just been the first stage and that we build on top of that.

**SHANE NEWCOMBE:** The first phase, yes.

**Mr CLAYTON BARR:** My understanding is that that first business case was for the north-west of New South Wales.

**STEPHEN McROBERT:** The pilot for that first phase of the project.

**Mr CLAYTON BARR:** The pilot?

**STEPHEN McROBERT:** Yes.

**Mr CLAYTON BARR:** And since then we've gone North Coast as well as metro. Are you aware if there are further business cases in the pipeline for the Central West, South Coast and south-west?

**STEPHEN McROBERT:** That's all covered in the rest of the program, so what the program is funded for now, which will give us 90-odd per cent coverage across the State.

**Mr CLAYTON BARR:** Do you own or operate sites where there are telecommunication towers or satellites or relays?

**SHANE NEWCOMBE:** As far as the two different types of sites, we have PMR sites and PSN sites. We have, from memory, about 146 PMR sites around the State which were, location-wise, centred around our areas of operation, around our zone headquarters at the time, and where our units were. They were built to serve our purposes. We don't own any of those sites; we just lease tower space and rack space to use those. It was not in our benefit to own the sites. Wherever possible, we try to leverage existing networks. In areas like the Far West of the State, we shared RFS's network. We had an MOU between ourselves and RFS that allowed us to share the network that they had in the Far West of the State, where their network exceeded our network.

**Mr CLAYTON BARR:** When you say "their network", were you using their digital relay or something like that?

**SHANE NEWCOMBE:** Their PMR network—that's correct.

**Mr CLAYTON BARR:** Do you then just get allocated a different bandwidth within that?

**SHANE NEWCOMBE:** No, we shared a single talk group.

**Mr CLAYTON BARR:** A channel?

**SHANE NEWCOMBE:** That's correct. That's one of the real limitations of the older PMR networks: They are a single talk group, so one person talking across that network at any particular time. Obviously, operationally, that's extremely difficult to manage, and that's one of the pure benefits of the PSN. We now have approximately 40 tactically assigned talk groups that we use to build our communications plans as well as dedicated talk groups within each of our zones. It allows us to build much more inclusive and collaborative comms plans when we are responding.

**Ms JENNY LEONG:** In terms of regional and remote areas, in terms of the SES and the RFS joining and sharing those channels, can I clarify why that would be an issue? Obviously in terms of New South Wales police and the kinds of messaging and channels they are sharing, do they—

**SHANE NEWCOMBE:** I think it comes down to the networks are built to suit their respective owner, and not just in the locations where they are transmitting from. But, critically, capacity is key. That has been one of the evolving metrics with the PSN. The degree of usage of all the agencies has increased. No agency has gone backwards in their use. We are all increasing our use. As that usage increases, the concurrent capacity of every site needs to be increased. You have to build a site that can handle the combined capacity of every potential transmission occurring in that footprint. The police's network was built and optimised for police's usage and only police's usage. It would have to have had a lot more money spent on it, and probably a full rebuild, to take the extra load of the other agencies.

**Ms JENNY LEONG:** The reason why the SES and RFS have been able to do that is because you've jointly worked on that project together rather than just jumping on the back of something that already exists.

**SHANE NEWCOMBE:** Jointly responding, correct. And given that they do the fires and we do the floods, they rarely occur at the same time. Although these days they do.

**Ms JENNY LEONG:** Yes, totally. I was going to say, let's touch wood on that.

**Dr DAVID SALIBA:** In light of the entire program, I'd imagine that in 2027 when it is finalised there will be ongoing reviews in terms of this. But in terms of an after-action review, is there anything that you'd be able to comment on or say in terms of improvements that we could have done with respect to this program as a means of guiding future programs?

**STEPHEN McROBERT:** I think better understanding the market and the true costs of it at the start would be something I would say is a lesson learned.

**Dr DAVID SALIBA:** Unpacking that point, we have had commentary from other people talking about a whole bunch of internal and external factors pertaining to it, but how do we go about understanding the market better?

**STEPHEN McROBERT:** I think we've heard it already: To do a seed-funded project to actually fully understand—to go out there and build these sites and understand all the costs and the hurdles it takes in—firstly, in finding a site, getting an agreement in place, designing and then building it—would allow to you have a better understanding, on scale, of what that cost would be.

**Dr DAVID SALIBA:** You just triggered a memory. Is there a way to have better governance structures pertaining to evolving technologies? What I mean by that is not being static in our thought process and saying, "This scoping in 2016 is what we are going to do," as opposed to having specific structures in place and to say, "What is out there and how could we change? How could we be fluid in our scope and approach?"

**STEPHEN McROBERT:** It's very hard, when you're building a network, to be fluid. I think what you need to look at and what we've presented here today with the SSKO-funded initiatives is really about thinking outside of the square and looking at technologies that will complement what we're building here as the network and as the core or the backbone of our communications. What other technologies can be added to complement that to provide that better coverage, that resilience and that BCP? When sites go down, we can pick up another network and still get that voice or narrow-band data through.

**Dr DAVID SALIBA:** I asked that because I remember, when I was younger and we were converting the internet, the broadband network, et cetera, there were arguments pertaining to whether we invest big money now for something that may be redundant in 10 years' time. I imagine this is part of that. As a State Government, how do we invest in technologies in the future which are significant in terms of cost? I would imagine we could have Ministers looking at this in the future and saying, "I'm not confident with the business case because we've seen these technological infrastructure projects blow out significantly in terms of time, cost and scope creep." How do we mitigate that so that we give confidence to a Minister to invest in this?

**SHANE NEWCOMBE:** I think we've spoken to the speed at which the technology is evolving, but when you are talking about the holistic network as a mission-critical network, they don't transition that quickly. The technology that's out there at the moment has been around for 10 years. It will probably still be around for the next five or 10 years. That's one of the challenges within the PSMB space, which will be probably what we'll evolve to: How do you make the public safety mobile broadband network a mission-critical network? By necessity, it will probably involve public carrier space—the Telstras and the Optuses and the Vodafones. How do we leverage any mission-critical component capability from within those networks? That's one of the real challenges moving forward. Also, from a project perspective, it's the appreciation around the importance of contingency funding. With the CCEP we had the fires, then the floods, then COVID and then more floods. There's always going to be something like that there.

**Dr DAVID SALIBA:** People keep saying that and, as a risk manager—I would imagine there would be a risk-management team—would that not be factored in, in terms of risk?

**SHANE NEWCOMBE:** It is, but I think it's increasing.

**Dr DAVID SALIBA:** You have all these risks, you have all these mitigants, and then you have residual risk that stems from that. People have said it, and I think that a good risk manager would be able to broadcast that and say, "These are considerable risks. Here's the potential probability on the basis of data we've had in the past." Put COVID aside.

**SHANE NEWCOMBE:** I think that risk management needs to be very agile because we are now seeing that we can have one part of the State in flood and the other part on fire. A couple of years ago, that didn't happen. Whether it's climate change or whatever that is feeding that, SES used to have a prescribed storm season when the big storms used to happen. Now they happen all year round. It's a constant increase in the tempo of those activities. Not only are the individual emergencies becoming larger, they're becoming more frequent.

**Dr DAVID SALIBA:** I imagine that would be a good point of resected business case development in the future, this aspect of risk and how risk is feeding in with these business case proposals, to see whether or not the probabilities are fit for purpose.

**SHANE NEWCOMBE:** Yes.

**STEPHEN McROBERT:** Yes. It's the likelihood of a risk turning into an issue. I think all the risks—COVID aside again—were well-documented, but not on the scale that we experienced. That's the challenge.

**Dr DAVID SALIBA:** You know what I think it is? It's that we've got these different risk-management plans in the ether, but they're not feeding into the right loops to inform better decision-making from government. Say this 2016 decision to roll out this project—I question whether or not all these different things are out there, but are just not feeding in. Maybe that governance structure needs to be tighter, as a learning point.

**Ms JENNY LEONG:** To follow on from that question, the thing that I am finding difficult about this idea of pointing to the fires, floods and COVID as the delays is that I absolutely recognise that the emergency service organisations and the frontline service organisations were directly impacted and hit by that, but my understanding is that the NSW Telco Authority, which is responsible for rolling out this program, is not on the front line of those floods or fires. The other bit of it is that all of the businesses that are the ones that are engaged to build the structures and whatever are also not frontline services. So the bit that I am finding difficult to understand in terms of the time delay is that, absolutely, yourselves and others are going to be distracted to be able to feed in on a project to provide feedback on requirements or other things like that, but you are not delivering the rollout of the critical infrastructure.

**STEPHEN McROBERT:** You've got to think about where these sites are. Quite often they're in these areas where they're on tops of hills and they've got roads that are dirt tracks up to the top, so access is an issue. It's very real. They are impacted by floods and fires.

**Ms JENNY LEONG:** It is the physical site rollout of where the communications sites would be rather than the personnel elements of who is delivering that.

**STEPHEN McROBERT:** Yes. It's not just that. In the fires, they lost sites as well, so it's about having to go back and rebuild from scratch in some instances.

**SHANE NEWCOMBE:** Some sites lost the entire access road. These aren't fix a pothole; these are rebuild the entire road infrastructure to get to the site.

**Ms JENNY LEONG:** It is the physical impact of it rather than the personnel capabilities to be able to deliver on the project.

**STEPHEN McROBERT:** Correct. It's not the personnel; it's access.

**Ms JENNY LEONG:** Great. Thank you for clarifying that.

**STEPHEN McROBERT:** Sorry if we gave that impression.

**Mr CLAYTON BARR:** Can you give me a 30-second explanation of what SSKO is? What is the nature of Stay Safe Keep Operational funding? Where did it come from? Where is it going to finish?

**STEPHEN McROBERT:** Obviously, early on there were indications that the program would take longer than expected, and that funding was all about providing source funds for agencies to maintain their existing networks. SES took a slightly different view, as I have mentioned already, to think more innovatively and longer term and to invest in technologies like the cells on wheels and vehicle as a node to give us some longevity and address some of the issues that we were currently facing.

**SHANE NEWCOMBE:** SSKO was purely a mitigation body of work. It was the Telco Authority saying, "We appreciate that this is taking longer to do than what was originally proposed." As the words say, "What do you need to stay safe and keep operational until we complete this project?"

**Mr CLAYTON BARR:** In terms of the total cost envelope, is SSKO inside of that envelope or is it extra money?

**STEPHEN McROBERT:** It's outside the CCEP program.

**Mr CLAYTON BARR:** I have a final question for clarification. You touch on 146 different sites. Once the CCEP is up and running in entirety, do you plan to operate no sites?

**SHANE NEWCOMBE:** Yes. That's our aim.

**STEPHEN McROBERT:** Correct. That's our aim.

**SHANE NEWCOMBE:** We will exit from those sites as soon as we physically can. Where we've transitioned off those sites—and that's a lot of the State already that our teams have transitioned off—we will start decommissioning those sites.

**Mr CLAYTON BARR:** Excellent. Thank you for appearing before the Committee today. You will be provided with a copy of the transcript of today's proceedings for correction. The Committee staff will also email to you any questions taken on notice from today and any supplementary questions from the Committee. We kindly ask that you return these within 14 days if that is possible.

**(The witnesses withdrew.)**

**The Committee adjourned at 16:25.**