

PRODUCTIVITY COMMISSION

INQUIRY INTO THE TELECOMMUNICATIONS UNIVERSAL SERVICE OBLIGATION

MR P LINDWALL, Presiding Commissioner

TRANSCRIPT OF PROCEEDINGS

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MR LINDWALL: Good morning, welcome to the public hearings for the Productivity Commission Inquiry into the Telecommunications Universal Service Obligation. I'm Paul Lindwall, the Commissioner for the Inquiry. I'd like to start up with a few housekeeping matters. In the event of an emergency, Standpipe Gold Motor Inn staff will direct and assist everyone in evacuating and moving to the assembly point outside of this building. We'll be breaking for morning tea around 10.30, I think. I think there'll be some treats provided. We look like we'll be concluding at lunchtime or around noon, depending upon whether other people wish to present. If you have any particular questions or wish to present at the hearing, please see Meredith at the back here.

The inquiry started with a reference from the Australian Government in April last year that has asked us to examine to what extent are government policies required to support universal access to a minimum level of retail telecommunication services. This includes recommendations on the objective for a Universal Service Obligation or equivalent, the scope of services to achieve objectives, specific user needs and funding and transitional arrangements. We released an issues paper in June and have received about 60 submissions since its release.

We've talked to a range of organisations and individuals since with an interest in the issues in the topic. We released a draft report in December and have received further submissions, which I understand are still coming in. We are grateful to all of the organisations and individuals who have taken the time to meet with us, prepare submissions and appear at our public hearings.

The purpose of the public hearings is to facilitate public scrutiny of the Commission's work and to get comment and feedback on the draft report. Hearings have also been held in Dubbo, Sydney, Cairns and Melbourne and final hearings will be held in Perth early next week. We'll then be working towards completing a final report to be provided to the Australian Government in April. Participants and those who have registered their interest in the inquiry will automatically be advised of the final report's release by government, which may be up to 25 parliamentary sitting days after completion.

We like to conduct all public hearings in a reasonably informal manner, but I remind you that a full transcript is being taken. For this reason, comments from the floor cannot be taken, but at the end of the proceedings you will be provided an opportunity to make a statement brief presentation. You are not required to take an oath, but should be truthful in your remarks, and you're welcome to comment on the issues raised in other submissions or by other people. The transcript will be in on our website within about one to two weeks and submissions, of course, are also on our website. I invite participants to make opening remarks and then we just have questions and answers. Claire Wiseman, welcome. If you could just state your name, for the record, and give an opening presentation, that'd be perfect.

MS WISEMAN: Yes, certainly. Thank you for inviting us to provide a representation today. My name is Claire Wiseman and I'm the CEO of Regional Development Australia Far North. Regional Development, RDA, Far North is part of a network of 55 RDA

committees across Australia. We're not-for-profit incorporated associations and we're governed by a volunteer board and supported by Commonwealth, state and local government.

The region we cover has a population of around 28,000 people, which is approximately 2 per cent of South Australia's population. However, the area that we cover is approximately 800,000 square kilometres, making it by far the largest in South Australia by land mass; and we're the third largest Australian RDA. The region that we cover takes from the APY Lands, Port Augusta, Flinders Ranges, Roxby Downs and Coober Pedy councils. It also covers the Outback Communities' Authority region. We facilitate a range of government and non-government support programs and provide direct services offering business, economic, tourism and workforce development assistance to businesses and individuals within the Far North region.

We commend the Commission on the inquiry. Like any program or service, review is important to keep it relevant to ensure that it's meeting the outcomes it was designed for; and we appreciate the opportunity to provide input into this. I've provided a copy of our submission to you today which supports the view that total removal of the TUSO without a system or program in place which meets and addresses the current and future needs of regional remote challenges would be a major disadvantage to our region.

We recognise that the telecommunications landscape has changed over time and for the majority of the Australian population. However, there are areas in our region where current services remain substandard and are substandard to quite a high level. Planned mobile coverage programs and the NBN rollout will still fall far short of meeting these current and future needs. Telephone service provision differs across the region. They are fit-for-purpose and reliable in major centres. However, some of our more regional remote areas have unreliable services.

Mobile phones and ADSL broadband are limited to major towns and spot mobile coverage along the major highways whilst most towns have dial-up internet access and major mines have comprehensive networks for their operational needs. Within our region there are 74 identified mobile blackspots, which is significant when you look at it from a geographical perspective. Approximately 90 per cent of our region has no mobile coverage. If you consider our region covers 800,000 square kilometres, that's a significant amount of land mass.

Round 2 of the Mobile Black Spot Program will see new towers erected in one regional and seven remote locations in our region. Whilst this is positive, it will have minimal impact on the region from a geographical coverage perspective as the coverage will be local, so only covering the town, the boundaries within it. In terms of NBN, the majority of our region will be covered by the Sky Muster satellite. However, there are many existing challenges with this service.

The draft report clearly states that this service will fall short of the quality of those offered under the current TUSO. A substandard service such as this will have a major impact on residents and businesses in regional and remote Australia. The region currently

lacks high speed broadband infrastructure, limiting the capacity of local businesses and individuals to interact with the global economy. For businesses in the region to remain competitive and for the communities of the region to remain connected, rollout of a high speed broadband must be extended to all communities as a priority.

The current communications system and coverage in the area pose many challenges for business operators with the biggest being reliability. It also places challenges for regional education via School of the Air and other virtual classroom based systems. People who live in remote and regional areas are aware that they may not have access to exactly the same level of service as their urban counterparts. However, they do expect to have a reasonable and fit-for-purpose level of service. For business families and communities in our region, the removal of the TUSO immediately following the NBN rollout will leave them without an adequate service and they'll be worse off than what they currently are.

A full and independent review should be undertaken of the existing level of information and communications technology services in regional and remote Australia. Following this, a regional and remote areas information and communications technology program should be designed that concentrates on providing an adequate and fit-for-purpose and equivalent level of service to all remote and regional Australia.

Thank you for the opportunity to provide input into the inquiry and I hope that our submission and the brief overview that I've provided today has broadened the understanding of the challenges our regions experience, and that serious consideration is given to the disadvantage our region will be placed in with removal of the TUSO without a program in place addressing the needs of our regional businesses, students, families and communities.

MR LINDWALL: Thank you, Claire. The NBN satellite, Sky Muster, both of them, I've heard in a number of hearings to date that there have been a lot of problems with the installations and the quality of the service. NBN, of course, says that this is part of a teething problem and that once it's properly established it should be satisfactory for broadband purposes. I take it that your constituents are a bit mistrustful of that assurance?

MS WISEMAN: Yes, and particularly if that's being utilised for voice services as well if they don't have the landline. For example, from an education point of view, children that we've got in our region undertaking School of the Air, the challenges that they are having with the service to even interact in their classroom, not only is it disrupting for the student, for the teacher, but it's disruptive for all of the other students who are participating in that virtual classroom, because they are trying to have a conversation or learn and the system is clicking in and out, you've got the interference noise, dropouts, delays, et cetera. It's very challenging.

MR LINDWALL: As you know, the NBN is structured on a wholesaler/retailer split.

MS WISEMAN: Yes.

MR LINDWALL: People who are on Sky Muster or, for that matter, any other NBN service go through a retailer. I understand there's about 12 retailers for satellite services. Have you had comments from your constituents or yourself about the quality of the retailers, the amount of information being provided, when there's a problem, how quickly does it get resolved?

MS WISEMAN: Not directly, but anecdotally I certainly have. There is challenges there. Then, of course, because remote areas trying to - the time and et cetera - that it's probably considered somewhat unreasonable. I think people understand distance, there is a bit of time. But it is considered somewhat unreasonable.

MR LINDWALL: The ISS, the Interim Satellite Service, was one that came before Sky Muster. Do you have any comments about the relative service of Sky Muster's broadband compared to the ISS?

MS WISEMAN: I can provide further comment on that, but I'm sure it would be far more valuable from someone actually experiencing that could provide that.

MR LINDWALL: The other thing about the satellite service we mentioned in our draft report is that maybe if you had the satellite service and the mobile service, that would be sufficient to not have the landline. Would you agree with that?

MS WISEMAN: No, I wouldn't agree from a - certainly from the perspective emergency services. Landline whilst in some areas is unreliable, it is still the most reliable form of connection. From a business perspective, landline is required as well for daily operations, particularly in the tourism industry for communication about what facilities businesses have, et cetera. So, no, I wouldn't support that.

MR LINDWALL: We got testimony yesterday in Melbourne that it's going to become increasingly expensive for Telstra to maintain the copper network over time because it's degrading, a lot of the technology is old. I'm paraphrasing here, but the view seemed to be that ultimately it was not feasible to continue the landline and that at some stage in the future, whether it be in 2020 or 2032 or somewhere in between, it will be not viable to keep it and some alternative will be needed. What would you like? It has to be cost-effective, of course.

MS WISEMAN: Yes. As long as whatever is provided is fit for purpose. I've touched on it more in our submission. But some of the landline services in our region are not fit for purpose as they are now. I understand that things degrade and quite expensive to replace. But there needs to be whatever form of technology or equipment that it replaces - needs to be replaced.

MR LINDWALL: Of course, broadband is becoming, as you mentioned, increasingly important to day-to-day life, interacting with the government, interacting with private sector, of course, communicating with your neighbours and so forth. Obviously we are urging the NBN to try to improve its services through the Sky Muster and other services

such as fixed wireless. Fixed wireless, as a matter of interest, in your region, has that been - is there much fixed wireless at all, do you know?

MS WISEMAN: We've been rolled out in Port Augusta. Roxby is soon to be, Roxby Downs, and Quorn I think they are due in August.

MR LINDWALL: The people that had fixed wireless, in your experience, have they been satisfied with that service?

MS WISEMAN: I would only be able to provide anecdotal evidence, but I'm sure you'll

MR LINDWALL: From what I heard, it is very good. But I'm just curious, that's all. As for the Mobile Black Spot Program, of course, that's being rolled out around Australia, there's been a couple of rounds, they're talking about more. What would you say have been the positives of the Mobile Black Spot Program, what are its weaknesses, how would you improve it? I take it that the RDA supports the Mobile Black Spot Program?

MS WISEMAN: Absolutely.

MR LINDWALL: But where do you think its flaws might lie? How could you improve it?

MS WISEMAN: I think part of the challenge in - I'm not sure quite how you could improve this. But, like I said before, I think it's 96 per cent of our region from a geographical coverage point doesn't have mobile coverage.

MR LINDWALL: It's quite a large amount, as you say.

MS WISEMAN: It is a large region. I certainly understand that from a commercial viability perspective, providing a quite costly service to a small population doesn't necessarily stack up in that sense. That's why I think something like that should be publicly supported in those areas where it is not commercially viable. From a South Australian perspective, the first round of the Mobile Black Spot Program, I think there were five in the region that we cover. Part of the challenge that we had was the lack of funding from the state government.

The second round that we had that - now, with both rounds, all of the South Australian RDAs have provided submissions and have worked with the state government in order to identify blackspots and needs within the region. In the second round the state government did provide funding, some matching funding in there, and we got, I think it was, eight spots up specific to our region. I go into a little bit more detail in that in my submission.

But as I briefly said, whilst that is positive and it is a good move forward, from a geographical perspective, it's not going to make a lot of difference in the region.

MR LINDWALL: Earlier comments I've received in this inquiry are that the South Australian Government has not been as active in supporting the program as some of the other state governments. Would you agree with that comment?

MS WISEMAN: Certainly having a look at the outcomes and seeing the matching funding, I've certainly noticed that other state governments have put in significant funding and have got significant mobile programs up within their regions.

MR LINDWALL: As you say, the mobile phone is a critical tool for modern society.

MS WISEMAN: Absolutely.

MR LINDWALL: Have you looked at any of these projects for enhancing payphone with Wi-Fi coverage like community payphones and the like? Have you seen any of those types of projects here in the region?

MS WISEMAN: There are two payphones with Wi-Fi in our region. One is in Port Augusta, the other one, I think off the top of my head, is in Coober Pedy. The rest are card payphone. That's what I'm aware of.

MR LINDWALL: It seems obvious to me, but maybe I'm wrong, but having a Wi-Fi enabled one is preferred to not having one.

MS WISEMAN: Absolutely, yes, definitely.

MR LINDWALL: Can you comment generally on the payphones usage in the region? Because, as you know, in our draft report we said that payphone have been less and less used over time. We did say that was the one that could be moved most quickly, rolling back the payphone service, provided there's alternative targeted services.

MS WISEMAN: I think in areas where there is access to mobile phones and other forms of communications, that that's relevant. However, in regional areas where there is not, there still needs to be some form of communication for those that don't have a landline to their house for whatever reason and also for visitors coming to our region. I comment more about this in our submission as well. But often when people are travelling to remote areas if they are not used to the long distance driving conditions of outback roads, it's quite important that they are keeping in touch with their families and updating them where they are.

If there's not mobile coverage, there needs to be some form of communication. In areas where there is not another form of communication and payphones - - -

MR LINDWALL: When I visited Marree and Blinman last year, I was told that a lot of people who arrive, tourists for example, have an expectation that their mobile phone will work and they get suddenly surprised and they're underprepared for, in fact, quite dangerous journeys in some cases.

MS WISEMAN: Yes, absolutely. And that's included in my submission as well. The other side of that, I mean, there is the emergency services aspect as well. There is the communications and the regional visitors' expectation. The mobile coverage in that sense is also a very good marketing tool in regional areas. With different social media platforms now, people are posting about their holidays and photos and their experience. That is a very good marketing tool for the tourism industry.

MR LINDWALL: Also, of course, it must make it, I would imagine that a town that has good Wi-Fi or good mobile coverage will have a competitive advantage over another town of equivalent size that doesn't. Would that be true?

MS WISEMAN: In some cases I think it would, yes.

MR LINDWALL: Is there anything else you'd like to add, Claire, to what you've said?

MS WISEMAN: A couple of things I'd like to add, and this is just more of, I suppose, a case study as such. Part of our role, one of the areas I spoke about was workforce development. Last year Alinta closed its power station in Port Augusta and its coalmine in Leigh Creek. We provided the career services to those 440 employees who were redundant. I had two officers based in Leigh Creek to provide those services. That was very challenging for us from a communications point of view just for them to do daily business and access printing. Because they're working with clients, so they're doing resumes. So even to access a printer or access their drives online was very challenging. Trying to contact them via mobile as well was incredibly challenging.

From an employer's perspective, that is quite a risk to have staff out in a region where they can't contact. With our business adviser and our tourism development manager, they do around 60,000 kilometres a year. They tend to travel together from a safety perspective. Their office is part-desk and part-boot of a vehicle. It is certainly very challenging for them from a connectivity point of view when they are travelling out in the regions. Then even when they get back to the office and they are working with a business, to be able to communicate paperwork and documents with that business is very challenging.

The other example that I have there in that scenario is last year the state government put out a regional development fund and that was for businesses to apply for funding for improvements, et cetera to their business. We provided assistance to a number of businesses that were putting in applications. One of the biggest challenges that we found was that the application form was only available online. So some of our locations (a) could not access it, (b) when they could access it, because they were inputting a raft of data, was continually dropping out on them. So they gave up. In that scenario, we were able to work with the state government department to ensure that there was a hardcopy version of the application. But just even in that sense, that's some of the challenges.

MR LINDWALL: But presumably once the NBN Sky Muster is properly rolled out, at least the premises, they should have good internet coverage.

MS WISEMAN: Depending on their location.

MR LINDWALL: I assume your people, when they're travelling around, would also use CB radio and maybe a satellite phone as a backup?

MS WISEMAN: A satellite phone. We don't have a lot of luck with satellite phones. We use it's called a spot device. Very simple, it's like a little handheld radio, but it's a very simple device that you press a button and it sends an arrival text. It also has the opportunity to send an emergency, "had a breakdown but it's okay", or it will actually communicate with emergency services. So all of our staff have - - -

MR LINDWALL: So it's good backup. And that relies on the satellite service, I think.

MS WISEMAN: Yes, it is good backup, but obviously - - -

MR LINDWALL: It's not cheap, I don't think. Is that right? It's not inexpensive.

MS WISEMAN: It's not inexpensive. We do that via subscription and that comes from America. It does have a tracking system on it. However, I tend to turn that off. The staff don't tend to like the idea of having their movements tracked within two metres of where they are. But that is a system that we use. For what we have access to at the moment, it is sufficient. But obviously, as an employer and with a duty of care to my employees, I would prefer a much more reliable system.

MR LINDWALL: Thank you very much then, Claire.

MS WISEMAN: No worries. Thank you.

MR LINDWALL: We've got Peter Slattery. Hello, Peter.

MR SLATTERY: Good morning and welcome. I'm Peter Slattery. I'm the Mayor of the Flinders Ranges Council and we provided a submission to the Universal Service Obligation process earlier and I am taking this opportunity to expand a little on that while we're here today; so welcome.

MR LINDWALL: Please. Thank you.

MR SLATTERY: We certainly support the Commission's draft findings around the substantially changed nature of Australia's telecommunications landscape and industry, the decreasing relevance of a fixed phone voice call service as the basis for the TUSO and the need, therefore, to review the place of the TUSO quite broadly. We, nevertheless, consider that the service inequality across the nation and regional areas, the ubiquitous role of telecommunications in modern society there remains the need for a social equity level acknowledgement of the need for intervention to support access when market forces do not make affordable access available to modern telecommunication services.

There are a number of assumptions underlying your other draft findings and arguably much of the content of the proposed future direction for the new TUSOs, which we're much more hesitant about. That the NBN can simply be relied on as a de facto safety net service provision to replace the TUSO and the rollout of NBN will deliver equitable standards of service, even as baseline broadband connections, to all regions and remote areas. We also consider that the baseline broadband connection as referred to in - as a fixed service to a single point doesn't really serve purpose as a new minimum standard, given the role of telecommunications in our society today, and that the TUSO can or should be removed rather than reframed.

We consider the same social equality imperatives which established it in the first place still apply across Australia's large and diverse landmass and complexity is not sufficient reason to eliminate it. Whilst the provision of a minimum basic service to a fixed point is defensibly a more relevant standard now than the fixed voice line, it doesn't recognise the increasingly pervasive nature of telecom as utilised in practice. We contend that improving access to mobile technologies in regional and rural areas for commercial, social and safety benefits of residents, mobile workers and the increasing numbers of travellers and tourists remains a great challenge for Australia.

Setting the minimum standard to what has arguably been quite readily available to most of the population for some time and falls significantly short of what is available to nearly all users at quite low cost by virtue of their location and population density is simply setting the bar at ground level. As recognised in the draft report, the majority of our landmass is very sparsely populated and it's not economic for commercial providers to expand their networks into these areas or, at the very least, they can generate better economic return on augmenting networks elsewhere.

The mobile black spot funding program isn't seen by our regional communities to be as effective in mitigating lack of coverage, as seems to be accepted in your report. Indeed, the competitive tendering process applied can compound and complicate issues for isolated areas, an example of that being recent funding provided for some pocket coverage in the Flinders was awarded to Optus on an old technology format via site share. That means that people in those areas who would, in all probability, already have Telstra 4G handsets because that's what they can use between there and the rest of the world, even if they can't use it at home, will now have to duplicate their services.

For expanding the mobile networks for voice and increasingly data into these regional areas - sorry, though expanding these is arguably quite difficult as baseline service standard, we feel that the fixed baseline broadband service proposed is setting the line well behind current practice. Some mechanism for expansion of mobile technology to enable regional areas to compete more equitably with metro and coastal areas whose residents and visitors don't have to be sitting at a desk at home to make calls or use the internet and who can operate their businesses from wherever they are at the time is required to allow all Australians the benefit of a modern and technologically advanced society.

The Mobile Black Spot Program doesn't fulfil this objective and the economic imperatives mean that commercial operations won't. Some mechanism along the lines of a recognised USO acknowledging the social equity aspects of access to basic utilities is required. Further, an access to mobile as well as fixed satellite data for remote residents and business operators, travellers and workers seems a more appropriate objective if we're aspiring to provide all Australians with equitable access to modern telecommunication services.

If the end is to be assumed to be the safety net provider of last resort, this will have implications for their current programs of using satellite services where compact communities would otherwise probably be better served by fixed wireless or a small investment in copper upgrades. But that's very much a separate argument, I know. And we'd also acknowledge that funding for such a program will probably require a more considered approach than that outlined in the draft report where the new TUSO is much reduced and therefore suggests to be drawn from Commonwealth Budget provisions. What we are suggesting should be undertaken is a much bigger project.

If I might just make a little side about payphones. I run a post office in Quorn. We've really only got Telstra coverage in our area. We have a lot of travellers come through with mobile handsets from other carriers and other networks. They do still rely quite a bit on payphones in those areas and in other areas where mobile coverage hasn't yet permeated. Until such time as mobile coverages are expanded and enhanced, then there is still a role for mobile phones as that safety net which, no doubt, led to their being included in the first instance. Thank you, Paul.

MR LINDWALL: You mean payphones, I think.

MR SLATTERY: Payphones, yes.

MR LINDWALL: Let's start on payphones. I mean, the way we looked at it is that the government has a whole lot of programs. It spends \$300 million a year with Telstra for the Telecommunications Universal Service Obligation, which is fixed voice to the home, plus the payphone (so that's \$44 million, if I'm not mistaken). Then it's got the Mobile Black Spot Program, which sometimes has a contribution from state governments. It's got various affordability measures that are provided and then it's got a whole lot of different little programs for target intervention. Then, of course, it's got the NBN.

Now, we can all say about whether the NBN was the best design or not. That's water under the bridge in a way and we are where we are and how can we improve it from here, obviously. The mobile phone network is expanding. I thought the Mobile Black Spot Program was based upon a mandatory requirement for site sharing, although, as you say, it doesn't necessarily happen in practice. It also requires, as far as my understanding is, that there be a share by the government, plus the provider, Telstra, Optus or Vodafone, if you like, to those mobile phone sites. They are supposed to be viable over a 10-year period, approximately.

How would you change the Mobile Black Spot Program to improve it? I put this all in the context that in the end, yes, the government needs to improve its services, but we have to keep in mind the total cost of all of this and it can't blow out too far, I suppose.

MR SLATTERY: It depends, I guess, on what the approach taken to expanding mobiles is. We're contending that expanding mobiles is more than just about mobile phone handsets, it's about the data coverage which comes with that and enabling people that have mobile access to do what they've got to do. The Mobile Black Spot Program as it stands is a competitive process, sites are nominated through a number of forums and then there's an assessment made and it would certainly appear that state level cofounding of sites enhances your opportunity a lot. South Australia seems not to have recognised that yet.

When we've got that process going on where we've got a provider installing what's effectively a stand-alone pocket cell, then I think there's a real complication because it'll provide a service for the residents immediately affected by that because they'll be able to go and access a handset that will work there, but it won't serve - for instance, in our situation it will not serve the tourist or travelling public because they won't all have a 3G Optus handset. I think that providing stand-alone ones, one carrier cells, is counterproductive in effectively expanding a mobile network.

MR LINDWALL: You know the ACCC, the Australian Competition and Consumer Commission, is undertaking a study in roaming at the moment?

MR SLATTERY: No, I didn't. Right.

MR LINDWALL: Yes. I don't know if the submissions are still being invited on that. I think it might be, so it might be worth having a look at that. That's outside our terms of reference, I guess, but it is something that has been a common theme, you're right.

Now, as for the NBN, if you observe what's happening in the cities some households are foregoing all fixed line connections and relying entirely on mobile. That's fair. Of course, mobile data rates are quite a lot more expensive and limited than fixed line data rates. In the cities you can get - some retailers are now offering 500 gigabytes or even unlimited amounts of data at whatever speed that you want, whether it be 100 megabits a second or 50 megabits a second or 25 or 12, download.

Another interesting fact that I heard in this inquiry is that 50 per cent of the data being used in society in the world is YouTube and Netflix. My thesis, if you like, is that for those households who like to download a lot of videos they require a fixed line connection because they can't possibly do it over a mobile connection without running up extraordinarily high data rates. But otherwise, mobile phone data is probably okay. Anyway, that's getting slightly off the point, I suppose.

But the thing about the NBN, of course, as you know, is fixed line comes in different forms; fibre to the premise, fibre to the node and so forth. Then they have the fixed wireless for about 3 or 4 per cent of premises and then the satellite service. In the area for

which you're the mayor in the town, how many people are using fixed wireless, do you know?

MR SLATTERY: It's still up in the air. Construction has commenced in Quorn and Quorn will be fibre to the node, then copper from four or five nodes around the town. Hawker is indeterminate. There's good facilities there to provide fixed wireless to that community. It's flat, it's compact and there's an enormous radio tower in the middle. There isn't spare transmission capacity into it; they don't have their own fibres. So that's probably going to mean that Hawker will be provided through a satellite service.

MR LINDWALL: But would it be fair to say that those people would prefer a fixed wireless than a satellite service?

MR SLATTERY: I think so and I think it would be pragmatic to not increase load unnecessarily on their satellite service because once it's up there, it's up there. It's not something that can be augmented readily.

MR LINDWALL: Exactly.

MR SLATTERY: And whilst they can probably model loading a fair bit, it does seem to me that there are opportunities being missed to not load the satellite unnecessarily. But that's a separate issue.

MR LINDWALL: Every household that you have on fixed wireless is a less household on satellite, of course. Have you got any knowledge of people who are actually using the fixed wireless?

MR SLATTERY: No, those services aren't provided in our area yet.

MR LINDWALL: What about the Sky Muster, what's your initial comments for those households that do use Sky Muster?

MR SLATTERY: For the most part, people found it to be a significant improvement on what they had. There aren't a lot of connections yet. But they are also finding that it doesn't quite meet what they were led to believe was going to be available.

MR LINDWALL: Some of that might be a teething issue, I don't know. Have you heard of any problems with the installation of the satellite dish?

MR SLATTERY: No, I haven't heard anything about any of that. Anecdotally, it would appear that a number of the concerns about the satellite service do relate to rain; loss of service due to interruption with rain. We don't have a lot of problems with that, so we should have a more reliable service than people much further north.

MR LINDWALL: I heard from another person who's an expert yesterday in Melbourne who said that some of the problem was that the satellites might not be the right size for the service, a bit small in other words, or may not be the proper - - -

MR SLATTERY: The receiver dishes?

MR LINDWALL: Receiver dishes, yes.

MR SLATTERY: A number of those issues became apparent with TV installations, the digital TV cutover some years ago.

MR LINDWALL: I asked Claire this too. If you have a reasonable mobile phone service - and reasonable means a high quality one - in your premises and you have an NBN satellite service, would that be sufficient to satisfy for both voice and broadband?

MR SLATTERY: I think so. We're not going to get the same level service everywhere. That's understood. It's just not cost-effective. I think some flexibility in being able to do some functions remotely, mobile link, but having access to a decent service certainly would mitigate most of those issues.

MR LINDWALL: It sounds like a lot of redundancy if something goes wrong.

MR SLATTERY: Yes.

MR LINDWALL: What about the actual service standard in data - you don't really have any comment about the download rates that are people are getting on satellites or the retailers are using?

MR SLATTERY: No, I don't.

MR LINDWALL: Anything else you could think of that might be worth mentioning? You've covered quite a lot today.

MR SLATTERY: I think most of our concerns are covered, but we do strongly consider that setting the minimum service standard at a fixed service with one fixed premises is really setting the bar exceptionally low and it is going to create a bigger digital divide between regional areas, even if they do get an acceptable service through the NBN, and other areas. We'd very much like that to be considered.

MR LINDWALL: There may be exciting technological developments in the future we don't know about. For example, in our Sydney hearings we heard of a person who was proposing the use of tethered balloons. I can't remember what altitude they run. But he said something like 200 would be sufficient to cover the geographic area of Australia. And they'd be \$2.5 million each. I said well, that's really good if we could do it, but I'm a bit sceptical. I suppose you can't rule out - I guess what I'm saying is that when we come up with policies we've got to be sure that whatever we do doesn't lock in a particular technology and doesn't discourage the development of new ones which might be better.

MR SLATTERY: Certainly we consider that some more emphasis on mobile satellite technology for remote areas, arguably more remote than most of our region, to be honest, but that does warrant some consideration, because it's important in maintaining a competitive level playing field for the whole country.

MR LINDWALL: There's one other question. I don't know, you may have a comment on this. The other thing that's come out of this is the bit about dark fibre. Have you heard of this where fibre optic networks are running past areas to a mining site or to something else and not being tapped into for the use of a small community? Have you thought about this, whether small communities, maybe 20 or 40 families, might be able to get together and arrange to have access to fibre optic in that way, which would give them a very fast internet service?

MR SLATTERY: It arguably could, but it would be exceptionally expensive. I did spend 20 years as a transmission install tech with Telstra. It's not a simple matter of running a T into the side of it; you need to install infrastructure to run transmission equipment to break the signal down to a usable capacity and then feed it back up and everything else has to run through. So for instance, all the regen sites from Adelaide to Darwin you can't actually do that sort of thing yet. You'd have to build - - -

MR LINDWALL: So yes, it sounds good in theory but not in practice, yes.

MR SLATTERY: Yes, yes, whereas we're finding that, you know, in our area, for instance, up through Quorn, Hawker and Leigh Creek, they only ran four fibres. If they're using four of them, there are no spares, and NBN requires its own fibres to run a network to a fixed wireless base, for instance. It's just a lot of things like that. No one is going to come and plant more fibres in - - -

MR LINDWALL: It's the usual thing. People see something going past and they think it's a fantastic service and why can't we tap into it.

MR SLATTERY: Certainly there's some base infrastructure in the first instance that's much more feasible. But it isn't a simple matter of running a couple of phone lines out of that because stuff goes through it at exceptionally high speed.

MR LINDWALL: And it wouldn't be cheaper for NBN in some cases to do that - - -

MR SLATTERY: Not then to provide a wireless satellite service, no, I wouldn't think.

MR LINDWALL: Anything else, Peter, that you can think of?

MR SLATTERY: No.

MR LINDWALL: Thank you very much for coming.

MR SLATTERY: Thank you very much.

MR LINDWALL: Could I invite Joanna Gibson from the Isolated Children's Parents' Association. Good morning, Joanna. If you could introduce yourself and say what you would like to.

MS GIBSON: Good morning, everybody. Thank you for having me here to speak. Firstly, I'd like to introduce myself and the Isolated Children's Parents' Association, and give a brief synopsis of our submission. My name is Joanna Gibson. I've lived in the northwest pastoral area of South Australia for the last 20 years with my family and currently reside at Yudnapinna Station, which is just 80 kilometres north of Port Augusta. My three children all attended Port Augusta School of the Air for their primary school education with either myself or a governess supervising them in the schoolroom.

Over the last 18 years I've been involved with ICPA at a local, branch, state and federal level, and I've been on federal council since 2013. I look after the communications portfolio for federal council and liaise closely with state ICPA portfolio leaders, some of whom have presented at the recent Productivity Commission hearings. This portfolio has always held a great interest for me as my children started school with a HF radio and saw the rollout of internet lessons in South Australia with varying degrees of success.

To tell you a little bit more about ICPA, since 1971 the Isolated Children's Parents' Association of Australia has represented families living in rural and remote regions of Australia. Our goal is to achieve equity of educational opportunity for all geographically isolated children and, thus, ensure they have access to a continuing and appropriate education determined by their aspirations and abilities rather than the location of their home.

ICPA Australia represents 96 branches Australia-wide and there are approximately two and half thousand member families. We're a completely voluntary apolitical parent body. Students whose family home is in rural and remote Australia and who are enrolled in schools of distance education rely heavily on telecommunications to access daily lessons via both telephone and internet. The majority would also be in the 3 per cent of the population that will rely on the Sky Muster satellite.

Our member families also attend small rural schools that are dependent on the internet for schoolwork, research, teacher mentoring and specific needs sessions, as well as landlines for contact, for teacher support, emergencies and all the general administration tasks of a school. There are quite a few rural small schools which are not in mobile coverage areas and struggle with receiving adequate internet service.

ICPA Australia has a long history of advocating for better communication services in the bush. Recently we've worked with the federal government during the rollout of the Sky Muster satellite service to address the requirements of families educating children at home while living in isolated locations. Other groups that we work with include the Australian Communications Consumer Action Network, ACCAN, Better Internet for Rural, Regional and Remote Australia, Broadband for the Bush and, more recently, the

Rural, Regional and Remote Communications Coalition, a group of likeminded lobby groups concerned about lack of connectivity in the bush.

Although you state in your draft report that the use of mobile phones has increased and there has been a fall in the number of fixed voice services, the situation is quite different in rural, remote and very remote areas where most of our members reside. Many of our members still rely heavily on landlines and our access to this is made possible by the current Universal Service Obligation. Due to the unavailability of mobile coverage or another reliable service, our landlines are an absolutely essential service for those that live in the bush.

We are pleased that the Productivity Commission has identified that the current arrangement for the USO is in need of reform. We agree that the USO could be modernised and improved. However, we do not want to see it abandoned. We also agree that the USO should be amended to include a baseline broadband service. Our members have long been asking for data to be included under the Universal Service Obligation terms of reference.

Nevertheless, ICPA Australia feels very strongly that NBN satellite voice service will not meet an acceptable baseline standard. The families that we represent live in some of the most remote parts of Australia. With an ageing population, an increase in the number of Australian students living with learning difficulties and the isolation of living in a rural and remote area, the need for the provision of a guaranteed telecommunication service suitable for their needs is paramount.

Issues such as latency, weather, power, reliability and the threat of congestion all affect the actual experiences of our members. ICPA Australia feels that none of the three options offered in the draft report on the Telecommunications Universal Service Obligation meet the needs of those living in rural and remote areas. Continuing with a TUSO is essential to ensure that people living outside city centres have adequate, affordable and reliable communications to a baseline standard. A reliable form of voice communication service, which is independent of internet, needs to be available to all who live in rural and remote areas. While we welcome the satellite service, it must not come at the expense of our landlines.

MR LINDWALL: Thank you. I think the ICPA does a fantastic job and I just wonder if you have any statistics that you might be able to either provide now or separately which show trends in the number of students using remote education and the way in which they interact, because, as you say, they originally would have used HF radio and then that would have been quite challenging, I imagine, and then to phones and now the internet to a greater extent. But are people - the age at which students stay in distance education and then move to boarding schools changing or is it pretty much the same the number of students that use distance education? How has that changed over recent years?

MS GIBSON: It does fluctuate a little bit and I can get - government has figures on how many students access distance education each year. It really does vary from state to state. I know in South Australia students going through Port Augusta School of the Air

currently are only about 39. That would be sort of to the north and west of the state on stations mainly, whereas in Queensland the number is a lot larger because of the population.

MR LINDWALL: I guess I'm just wondering because learning through HF radio would have been very, very difficult. I don't know how one could have done that, but I suppose people manage with what they have. The internet provides a superior form of possibility for distance education. So I was just wondering whether the Sky Muster service might actually encourage some students to stay in their homes rather than go off to say boarding school.

MS GIBSON: I think most students will stay in distance education until the end of primary school. If they're fortunate enough - I think my children would count themselves as fortunate - they do go away to boarding school just for the socialisation. You might find that there's one or two children in the family and it's not fair on them for them to learn in that sort of isolation for the whole way through their schooling. Boarding school is a very expensive option. So that's another whole story. And there are people that choose to keep their children at home and teach them all the way through to the end of their schooling. But I think they are in the minority.

MR LINDWALL: Now, the Sky Muster service - and you can tell me a bit about your experience so far of it - but it does have an education portal of 50 gigabytes per student per month, if I'm not mistaken, up to three; so 150 if you have three students.

MS GIBSON: Correct, yes.

MR LINDWALL: What happens if you have four students?

MS GIBSON: The NBN said that they will look at it on a case-by-case situation. That's a great benefit for people studying by distance education and also home schooling, people that are in home schooling by choice; they're able to access that education port as well.

MR LINDWALL: The typical student using the Sky Muster education portal, could you just describe how it would work? Because they still use the phone, I presume, as you say.

MS GIBSON: They do. It depends on which state you're being educated. In Queensland I'm sure that you've heard that Queensland Department of Education has stated that students under grade 3 - so kindergarten till grade 3 - need to use the phone as well, not solely rely on VOIP because of the delay. That is becoming problematic. They feel that the younger students can't really cope with waiting around for the - and that happens also because there is a group of students in a class, obviously, and then if they're all on Sky Muster the delay can be quite long.

MR LINDWALL: How does that experience work when you have video connections via Sky Muster to X number of students, plus their teacher, and they speak to each other? How does the teacher manage it so that someone doesn't talk over the other, which I would imagine would happen with latency issues?

MS GIBSON: Yes. It's with great difficulty. It's just something that these kids do. I don't think they ever get used to it, but they know that it happens. Because of the different places that everybody lives, the latency is different and so - I know we were on the interim satellite. That was a disaster. It was very hard. The teacher would load a page, ask a question, everyone would answer and then it seemed like five seconds later someone else would talk over the top because they've just seen a page. It can be very disruptive for the students.

MR LINDWALL: How have you found the experience with your children of Sky Muster to date then?

MS GIBSON: They're all away at boarding school now. From reports that I've had from people, Sky Muster is much improved than the interim satellite was. However, someone else said to me it's off more than it's on and they never had as many dropouts with the interim satellite as they do with Sky Muster.

MR LINDWALL: I think that may be a teething problem, but we'll see on that, I guess.

MS GIBSON: There's a lot of teething problems.

MR LINDWALL: Are there any comments from your constituency about the 50 gigabyte limit? Is that sufficient?

MS GIBSON: At the moment that seems to be fine, yes. But, I mean, with the increase in - I don't know how it increases so much. But in five years' time you might find that 50 gigs is nowhere near enough. But at the moment it seems fine.

MR LINDWALL: Yes, of course, things like that need to be reviewed over time.

MS GIBSON: I think from where they've come with a limit of 25 gigs or 20 gigabytes on the interim satellite to now being given 50 gigabytes or having to pay for 50 gigabytes for your student, it seems a huge amount. So people are very thankful at the moment.

MR LINDWALL: Maybe I should explain a little bit about what we've said in the draft report because I think there might be some misunderstanding about a bit of what we said. That is, in particular, we said that (a) the Universal Service Obligation, which, of course, is voice only to the premises, plus payphones, is outdated, that the copper lines are becoming increasingly expensive to maintain and ultimately they won't be viable. I think we made that point.

We've also made the point that for anyone who's on a system which is fixed line, either fixed fibre to the premises, fibre to the node or fixed wireless, that the voice service on that is very, very good and the data is very good too. So we thought that that would be sufficient. We observed that mobile phone networks have been growing organically without too much government intervention, apart from the Mobile Black Spot Program,

which most people seem to be quite supportive of, although we've noted I think today about some of the potential problems with it.

We've said that a Universal Service Obligation probably doesn't work best only because why do you need to have an obligation to provide a service in all of the cities of Australia where they will be provided anyway; they don't really need an obligation. That comes at a cost, which is why we proposed a more targeted solution. Then we narrowed it down and thought where are the problems lying? So we said that in the fixed lines' footprint of NBN and fixed wireless we didn't think there is an issue. Maybe I'm wrong, but that's what we said in our draft report.

We said that the part that might be an issue is the satellite zone, the 400,000 premises that are in the satellite zone, the Sky Muster service. Of that, we made an estimate that about 90,000 premises within that 400,000 do not have a mobile phone coverage. So the remaining 310,000 do have a mobile phone coverage. Then we basically said - and we didn't come to a firm view - but we said that perhaps if a person has a reliable satellite service from NBN, plus a reliable mobile phone service, that should be sufficient, they don't need to have a fixed line to the home.

Then for the other 90,000 premises that don't have a mobile service we thought that well, they needed targeted intervention. Rather than having some grand universal service that covers 22 million people in Australia, that we should just target the 90,000 premises in Australia that don't have the mobile service and that don't have a - on the basis that by the time this all happens the NBN satellite service should be fully bedded down and should be operating well. That's crucial. I mean, we never said that we should roll it out when it's in its infancy and it isn't working very well. But it did require both mobile phone coverage being there and the satellite service being well serviced. Is that reasonable or not?

MS GIBSON: Yes, I understood all of that from the draft. I think the fact that you're proposing an NBN service that works perfectly and a mobile phone service, I'm not sure that is going to suit many of those people. For example, Wilgena Station where I used to live, which is 400 kilometres northwest of Port Augusta, does have mobile coverage; it's on the train line. However, it doesn't always work. So then you've got an internet service that goes out. Mine was out yesterday, the Sky Muster service. Then your mobile tower is down. If you had a landline, apart from - like unless you've had a week of cloud, our radio phones, which is what we've got, they still work. I would hate to be left with not a landline, just relying on other forms of technology if there was an emergency.

MR LINDWALL: But you do see the point that ultimately the landlines will not exist one day in the future?

MS GIBSON: One day in the future when everything else works beautifully I can see that you're going to want to take them away, yes. But I think there will be a lot of discussion from the bush when you try to.

MR LINDWALL: I do make the point it has to be a reasonably reliable mobile service. If you're just a patchy mobile service we would classify that as not having a good mobile service.

MS GIBSON: But how are you going to determine a patchy mobile service?

MR LINDWALL: There's some testing and that type of thing. In the end, there'll be borderline people and they fall in one category and the other. I want to ask also about the concept of an obligation and also the fixed line service is not a hundred per cent reliable by any means. My mother, who lives on a farm by herself - fortunately, my sister and brother-in-law don't live too far away - does not have mobile phone coverage. She just has the landline, the copper based landline. She's had it out for more than a month on at least three occasions. So I know the problems of not having communication. I worry about her all the time because of that.

I just think that the landline is not a system that's a hundred per cent reliable. In many cases it's taken a long time to get people repaired on that. So what would you do for that? I mean, people's consumer service guarantee varies too and their knowledge of their rights under that seem to vary too.

MS GIBSON: Yes, and I understand there's going to be an inquiry into that in the future which we'll have input into.

MR LINDWALL: Correct, yes.

MS GIBSON: Although the landline might be not be completely reliable, currently it is more reliable than the satellite. Until it can be proven that the satellite is going to do the job that everybody says it's going to do, I don't think that our members would be keen to lose their landlines.

MR LINDWALL: Have you heard of the statutory infrastructure provider legislation draft that's been put out for comment by the Department of Communications?

MS GIBSON: Yes, that was calling for submissions from last week, wasn't it? We had input into that.

MR LINDWALL: What do you think of that or have you got any comment about - - -

MS GIBSON: Is that the one where there'll be a fund from - - -

MR LINDWALL: There's one bit of legislation which is regional broadband which is about having a levy on some providers to cross-subsidise NBN. That's not that. But what I'm talking about is the - it's effectively making, more or less, a wholesale guarantee, although guarantee is probably a bit of stretch on it, but that's what it would be like. It's like the consumer service guarantee is because the USO, of course, as it is, is a link between Telstra as both the wholesaler and the retailer of that service, whereas the NBN model has a split between the wholesaler and the retailer.

Some of the communication we've had in our inquiries are that people deal with their retailer, they don't often know what's happening with the NBN. A lot of the problems I've heard are coming about that type of thing, poor communication, if you like, or the retailer not having sufficient people on their call centre to address a problem. Maybe because there's a lot more problems at the moment because it's been rolled out and hasn't been properly bedded down, it might get better over the future. But at this point in time, people have expressed a lot of frustration about communicating about their NBN problems.

The SIP legislation - and we'll probably comment about it in our final report - is an attempt to give some sort of certainty to people about repair timeframes. But they don't actually have the same type of timeframes for repair and maintenance that are mandatory like in the current USO. I guess that's what I'm just wondering, how far you think that SIP should go that would give you a level of confidence.

MS GIBSON: I know that our members asked at our last conference that repair times for NBN satellite systems be more aligned with Telstra repair times for remote areas. It's up to 90 days, I think, the repair times for remote areas, whereas Telstra is only 10 days. Our members' argument is that 90 days is too long to go without being able to attend school.

MR LINDWALL: I'll repeat my other question then. If you had a similar type of guarantee for the NBN satellite service for repair and maintenance and you had sufficient mobile phone coverage - and I mean a good quality one - would that be enough to forego your fixed line?

MS GIBSON: From me personally, no, and for our members, I don't think that they'd be willing to let their fixed line go.

MR LINDWALL: Have you got any comments about the black spot program that's being used? We've spoken about it earlier.

MS GIBSON: I think that we were encouraged - in your draft you said that there'd be more community involvement and less political involvement. I think that's a good thing.

MR LINDWALL: How would you in practice - I think although we've had some feedback, but I'd like some advice about what you think would be a good way about getting better community engagement on selecting sites for the Mobile Black Spot Program and for prioritising them.

MS GIBSON: This would only be like a personal view. I think major transport routes are a given and I think that they should all have mobile coverage the whole way along them. With regard to education, a lot of people that are close into town or have mobile coverage are able to use mobile data for education and it's a much better service than NBN. Also, Telstra have unmetered all of their education sites on their mobile data. So it's a lot more cost-effective to do it that way.

But I'm not sure how you go about getting more community involvement. I mean, a lot of people I know put in their sites for where they think they should be and whatever and then we just wait to see what happens and it all comes out and half of them haven't been chosen anyway.

MR LINDWALL: I know it's not always easy. Joanna, have you had any other points you'd like to make?

MS GIBSON: No, I think you've probably heard enough from ICPA over the course of your discussions.

MR LINDWALL: I think we very much value your contribution and thank you very much.

MS GIBSON: Thanks.

MR LINDWALL: I think we might as well have a bit of a morning tea.

ADJOURNED [10.09 am]

RESUMED [10.40 am]

MR LINDWALL: Phil, if you just say your name and say what you wish to.

MR TURNER: Thank you, Commissioner. My name is Phil Turner. I'm, for all my sins, the publican of the Marree Hotel. First of all, I'm not technically astute in relation to knowing much about the workings behind all those things that we come to expect in communications, particularly at the hotel. I like to think that when I turn on a tap the water is there. I don't think too much about where the water comes from. The same with a light when I turn the light switch on. I know the power is there. I don't necessarily worry too much about where that comes from.

I'd like to think the same thing happens with a phone and I'd like to think the same thing was happening with the internet. The fact of the matter is it just doesn't happen. We are without mobile phone service and we had an internet service operating under the old satellite. The hotel requires 180 gigabyte of data to operate on and the NBN Co, in all of its wisdom two years ago in March, introduced a fair use policy, I might add, without consultation, unilaterally and instantaneously, and cut us back from 180 gigabytes to 20 gigabytes. So we had the internet for about a week.

The Sky Muster system has rolled out and we are connected. Under much hoo-ha from NBN Co and much excitement, they gave us 65 gigabytes; still about 120 gigabytes short of our need. So we start to go slow in about the third week of the month until we run out until the next monthly cycle. We're making do.

The problem is exacerbated by the fact that everyone that we do business with in the cities expect us to have good internet. They have it in the city and that everything we do, "Look, could you go online? Could you purchase online?" They're moving us to an online or a mobile application of which we aren't able to do. We have now this year in our business strategy we've divided the role between myself and my wife and she goes back east - a good chance, I'll admit, to catch up with family - but the primary reason is to enable her to get good access to the internet to be able to do some of the accounting and administrative work. It's disruptive and in this day and age I consider unacceptable.

I just want to make a comment though about communications in general. We've been campaigning for some time now for mobile phone service in the region. Marree is the gateway to the Kati Thanda Lake Eyre Basin. It's at the juncture of the iconic Oodnadatta Track and the infamous Birdsville Track. It has a population of about 60 or 70 people, granted, and this is not necessarily about the people in Marree wanting mobile phone. It's the fact that we have thousands and thousands of visitors, which is the main state of the economic drive of the region, coming up there and most of them come from the cities of Australia and they expect to have good mobile service and internet.

We have provided Wi-Fi to our guests, however, I got a very heated phone call from the NBN Co to say that it was illegal for me to give Wi-Fi to my guests, that I had to be licensed to do that. That was a retailer's role and not the role of myself as a subscriber. I was grossly offended and I said, "Well, you try and take it off me," and we still provide Wi-Fi to our guests. I think it's an expectation of a guest to be able to access the Wi-Fi, particularly seeing as there's no mobile service. But, anyway, that's a little bit of an ongoing issue.

It's not necessarily about the people of Marree, it's about the region. Marree is at the gateway of the largest organic beef-growing area in the world. We also have a major responsibility for servicing the flow-on effect from both Moomba and Roxby Downs, as well as the pastoral areas further along the Oodnadatta Track. With that comes the researchers, the environmentalists and all of those doing business in that region. They tend to use Marree as their base and we can't offer them at least the basic business support functionality in communication terms.

It was announced in late last year under the black spot program that Marree would get mobile phone service. We got sold a pup. In the lead-up to that and campaigning and promises from the member for Grey, Rowan Ramsey, that we would have mobile phone service. We were given every indication that we'd have a full service with a reach well along the Birdsville Track and the Oodnadatta Track. This is needed for emergency services, particularly the Royal Flying Doctor Service, and for those that get into trouble on those two iconic tracks. The roads are actually quite good as far as dirt roads go, but they're long, they're hot and they can be dangerous to the unwary.

Then we were told just before the announcement that Optus had weighed into the debate as a competitor. The upshot was that we were told that we were going to get an Optus mobile cell. I understand that it's about a 3 kilometre range. That's useless,

absolutely useless. If it's trying to be competitive, then my belief is we should have both Telstra and Optus and let the market dictate which one they want to use. That would be fair and equal, or a shared service between Optus and Telstra, and let the market determine which one they use.

But to think that all of the visitors are now going to either have to get an Optus SIM card or an Optus phone to be able to connect with the outside world is just unthinkable in today's environment. So disappointing, bitterly disappointing, and I have grave concerns about essential services along those two tracks.

I'll give you an example. At Christmastime just gone when there weren't too many visitors around, too many people driving on those tracks and also not too many people in Marree, there was a single person rollover about 55 kilometres south of Marree. The young girl in the vehicle was unconscious. We're not sure how long she lay in the desert. It would probably be for in excess of an hour. She was first discovered by a couple who were driving up to Witchelina to manage Witchelina Station over the Christmas period. They didn't have UHF but they were able to rig up a tarpaulin to give her some shelter as she was moving in and out of consciousness.

The next vehicle that turned up was Cookes Outback Motors. It was a vehicle recovery. So he had a trailer on the back as well. He had UHF and was able to call Witchelina Station. They rang the Royal Flying Doctor Service and with no one else in town the nurse fronted the pub and said, "Hey you, I need you to drive the ambulance," and we took off down the road and provided assistance. Stabilising the girl was traumatic for someone like me who hasn't been around that scene. But we were able to do so.

But what was absolutely confronting for me was the Royal Flying Doctor nurse trying to communicate with the plane on a satellite phone. Here was this girl, she was seriously injured with fractures in back and concussion, lacerations, et cetera. The initial decision was to transport her to Marree and to get the plane to land at Marree until we realised there's no mobile phone service in Marree and then divert the plane to Leigh Creek. However, we couldn't contact the plane. So back on the UHF, back to Witchelina and eventually onto the plane. Then we hotfooted it to Leigh Creek and got her away there.

Now, just as an aside, she's fine. But it could quite easily have gone the other way. I just don't feel that we should have to succumb to those sort of methods and procedures in this day and age when something as simple as mobile phone service to a region, not just a town, is absolutely paramount for areas like Marree. I might add too that just this week alone we have had four very similar incidents, some not as bad as that; in fact, all of them nowhere near as bad. But potentially they are very damaging and we have to make sure that everyone that leaves the Marree Hotel we know where they're going and we promote them to say, "Would you please ring a relative and let them know where you are?" It's usually a flat tyre or they've come off the road or a soft rollover or something like that. But they can be stranded for some time.

The more recent one was an elderly couple in this last rain we had that left William Creek towing a caravan and they jack-knifed in the mud and slid off the road. Then SA Roads closed the road and they didn't know they were on it. They were there for four days. Both of them moved into shock. They had to be flown out and taken to Port Augusta Hospital and their caravan and vehicle recovered. They couldn't make a call and no one knew they were there.

Tragedy has been averted by the communities along or all in that region, including the pastoral properties that spring into action as soon as they hear of a problem. But, once again, it shouldn't happen. Mobile phone service, mobile phone coverage in that area would be a great asset. The other advantage of having a decent mobile phone service is it takes the pressure off our Sky Muster system, particularly from visitors coming to town. I hear what you say, that it's more expensive. But as a visitor, as an interim, as a short stay concern, a very valuable proposition.

The two would take a lot of pressure off the NBN Co if we had a decent mobile phone service. I do know that it's not just about making calls or accessing YouTube and Netflix, as you mentioned earlier. Mobile phone and the internet are intricately entwined in the business with the pastoral leases. Their ability to be able to scan cattle tags now on the fly enables pastoralists not to muster. It has massive implications to improve productivity for the stations. Once again, all of those benefits flow on. I'm not an expert to be able to talk about the pastoral leases side of things. It's just what - I'm in a position at the pub to be able to pick up the community's concerns. I feel their pain and feel it's becoming a really significant issue and, as I said earlier, driven by the fact that everyone, including the pastoralists that we deal with, expect us to have good mobile phone service and good internet.

MR LINDWALL: Thank you, Phil. We enjoyed our visit to Marree last year. What do you say about thousands of visitors who maybe 20 years ago would have been better prepared for accidents by having a HF radio or something on board? Would it be fair to say that they're now less prepared than they were in the past for that type of trek across those long and rather dangerous roads?

MR TURNER: In-vehicle technology has improved. The vehicle-to-vehicle technology is pretty good. I would say that the majority of those dedicated four-wheel drivers are very well experienced and very capable. We don't have an issue there. But because of the interest around Kati Thanda Lake Eyre and the region as a whole, which is fantastic for tourism, the desert regions of South Australia are the most significant in the whole central desert region of Australia. I mean, we're all campaigning for the fact that north of the Flinders Ranges is a whole new world of adventure and opportunity and intrigue, both from the prehistoric perspective and its fossils, right up to modern day and the river systems of this amazing thing that we've got with Lake Eyre where all the rivers flow inland and don't flow out. With that it attracts tourists and tourists flock there.

The numbers have increased so dramatically over the last 15 to 20 years that that's where the problem has exacerbated. So we're now getting visitors who are not as well prepared to travel the region, let alone having ever driven on a dirt road. During the

summer months and these sort of temperatures we get international visitors. We had 10 backpackers turn up in a Wicked van last night at half past 10 because they had two flat tyres on the Oodnadatta Track. No one knew they were out there. So we fed them and they camped out the back.

But they're the sorts of things we say, "What are you doing? It was 47.2 degrees yesterday. What are you doing driving around in a Wicked van in those sort of temperatures?" They say, "That's what we expect. We're from Europe and it's cold. We wanted to come and see the outback." But they don't understand that grease turns to oil and all the other inherent problems associated with it. And they're the ones we've got to scrape off the road. They've all got mobile phones but they don't understand they don't work.

That's where the problems develop. As caravans have now become off-road - well, there are some off-road and some that aren't - but they still drag them up there anyway, and they're not prepared and they get into trouble as well. It's this thirst for the adventure, but it's that group that's escalated in the numbers and they're not prepared. But they have a - I bet you if I asked every single one of them, "How did you prepare for the trip?" It'd be food, it'd be the esky full. The last thing they would have done was to check whether or not there was mobile phone service or internet coverage because it's an expectation.

MR LINDWALL: It's easier today to find about what you would expect and how you should prepare because online there'll be numerous amount of information about good preparation for any part of Australia or any part of the world. It's a paradox, I think. There's no easy solution to that one. People just are underprepared, yes.

MR TURNER: It's a little bit of a Catch-22 because you don't want to turn people off because it's so important that we've got the numbers of visitors to the region for an economic reason. So there's a fine balance there at present. But it's something that could be very, very easily addressed. We have fibre optic cable laid right outside the hotel. It's just not connected. It puzzles us as to why, when all the discussions I've had with both the retailer and eventually when I was able to talk one-on-one with NBN Co, they were very reluctant - but we at least had some fairly vibrant discussion - that they still referred to the population of Marree as not being eligible for mobile phone service.

I could not convince them that it might be fine in the suburbs of Adelaide but where we are it's not about the population of Marree that constitutes whether or not you get mobile phone service; it's the fact that our population, our visitors, increases so dramatically for about eight months of the year.

MR LINDWALL: You were talking about your Sky Muster service with 65 gigabytes a month, I think is what you said. I understand with Sky Muster you get a peak allocation and an off-peak allocation.

MR TURNER: Yes.

MR LINDWALL: Do your retailers talk about technics or tools you could use to move some of your peak onto off peak?

MR TURNER: No.

MR LINDWALL: Like programs that allow you to send your data during the off peak when you're asleep or something?

MR TURNER: No. We do that anyway. We load it up and before we shut the pub we set it in process to download of an evening.

MR LINDWALL: Having Wi-Fi for your guests, do you know of other pubs in Australia that follows with their NBN satellite service using a similar type of arrangement?

MR TURNER: No, I don't. I'm pretty sure they do. I know there's another place in Marree that offers Wi-Fi as well. Yes, I'm sure they all do. It's just that I had the conversation directly with NBN Co and then got a very terse letter to say it's illegal, which absolutely floored me.

MR LINDWALL: I take it with your Wi-Fi you have to limit the access because - - -

MR TURNER: Yes, we do.

MR LINDWALL: You don't want one of your guests using your 65 limit bytes up.

MR TURNER: They're limited to an amount of data and they're limited to one hour. It's mainly for those - we give 24 hours to those that fly in for the pilots and things who need to access weather and those sorts of things. But the general public are just interested in email. We have had instances - last year we had a group of German business people through. They travel the world six months of the year. Then they go back to Germany and swap notes with all of their friends who've been travelling all over the world as well. They exchange their travel itineraries and do the trip next year. It's quite a good network.

They've had to take Australia off the list because of the unreliability of being able to maintain contact with their businesses while they're travelling around Australia. They've been to South Africa, Tibet, the mountains and all of these incredibly remote places and they're able to get the internet and continue working and keep in contact with their businesses in Germany. Sadly, they've had to take us off the list, which is unfortunate.

MR LINDWALL: My memory from Marree is that you have a payphone out in the main street and you've got a private payphone in your pub. Is that correct?

MR TURNER: Yes.

MR LINDWALL: What would you like to say about the usage of those? Have you observed - I mean, you'd know your private one, presumably.

MR TURNER: It fills a gap. It's not ideal. It's reliable. The payphone outside is not reliable. That's very rarely working. It's either jammed or got a card stuck in it or something is usually wrong with it. It's serviced from a maintenance person at Leigh Creek. But our blue phone hasn't let us down at all. But, once again, we wouldn't need it if we had mobile phone service in town.

MR LINDWALL: To be clear, just for the record, the blue phone is not part of the Universal Service Obligation.

MR TURNER: No.

MR LINDWALL: But the payphone out the front is part of the Universal Service Obligation.

MR TURNER: Is, yes, correct. We bought the blue phone and installed it and then had the line configured to the pay system.

MR LINDWALL: I just want to ask you a bit more about the Mobile Black Spot Program. When you said that you'd been selected and then led to believe that you'd have a good, quite a wide service, how was that communicated to you? Did you get it in writing?

MR TURNER: No, it was initially in discussions with our local member and also our state member. The need for the wider reach was a very clear requirement for Marree. The first inkling I got that wasn't going to transpire was about two months before the announcement. I was just totally shocked, totally shocked. But I can understand areas like William Creek. But places like Marree with that wider reach along the Birdsville and Oodnadatta Tracks I just don't understand the logic behind that at all.

MR LINDWALL: The Optus 3 kilometre range, which would be 3 kilometres in radius around - - -

MR TURNER: I don't understand - - -

MR LINDWALL: I assume that has to do with the height of the tower as much as - - -

MR TURNER: I have no idea, I'm afraid. All I could get was what I could pick up from Googling what a mobile cell was. There's a site and that's what I learned.

MR LINDWALL: Where's the nearest place at the moment you can get mobile phone coverage from Marree?

MR TURNER: Nearest place? Would be Leigh Creek.

MR LINDWALL: Which is about 60 - - -

MR TURNER: 110, 115.

MR LINDWALL: 110, 115 kilometres away, so quite a fair way, isn't it?

MR TURNER: Yes. We can actually get some reception at times when the wind is blowing the right way from the first floor balcony of the hotel, but it's certainly not reliable. So it's not far.

MR LINDWALL: If you had, as you do, your Sky Muster service and you had a mobile phone service, would you do away with your landline?

MR TURNER: Yes. The other thing it would do, we are the only hotel in South Australia that still is landline link for the servicing and monitoring of our poker machines, because - - -

MR LINDWALL: The only one?

MR TURNER: They introduced a new system to monitor poker machines but it relies on mobile technology. We have all the boxes sitting there waiting to be connected but they can't connect them because we don't have a mobile service. It uses Wi-Fi and mobile. I don't know how it works. So we had to sign a separate contract which is still operating on the old landline for your phones.

MR LINDWALL: The EFTPOS machine that you have, does that go through the NBN now?

MR TURNER: It does, yes. It used to be a landline, but to ease that we moved it over to an internet-based - - -

MR LINDWALL: That must have happened since we visited.

MR TURNER: And that's linked to NBN.

MR LINDWALL: How much better is that?

MR TURNER: It's exceptional, very, very fast and good. The problem is that when we lose the internet we lose our EFTPOS. And the internet was down for half a day yesterday, so we were without our EFTPOS system for half a day yesterday.

MR LINDWALL: Do you know why the internet was down yesterday?

MR TURNER: No. The whole town was out. We get a lot of wind and that'll usually interfere with it. I don't know why. And it also interferes with our digital television as well.

MR LINDWALL: Are your satellite dishes well secured, do you think?

MR TURNER: Yes, they're fine. We have about 12 of them.

MR LINDWALL: May I ask, finally, about - you don't have to mention the name of the retailer. But you had to choose a retailer for the Sky Muster service. I think there's about 12 of them available. How did you go about choosing your retailer and have you been satisfied with the communications you've had with that retailer?

MR TURNER: Pre-Sky Muster, we had a retailer. I'm more than happy to mention it, but it's sort of irrelevant in a lot of ways. And we stayed with them through the introduction of Sky Muster. The communication between them and ourselves was nothing short of bizarre. We had some very, very unusual correspondence that was sent to us from the retailer about possible problems of the NBN Co, even though they hadn't had them. But two to three pages of, "This is likely to be a problem. That's likely to be a problem. This will be a problem. Do not blame us. Call so and so." Not only that, waiting times anything up to an hour and 20 minutes to be able to call our retailer.

So we changed after Sky Muster and we went - and I will mention them - to Activ8me. So far they've been very good. They are totally online. We can get into our account, we can manage our data through their online portal. So far they have been excellent.

MR LINDWALL: When you had the outage yesterday, do you notify Activ8me or what's the normal process?

MR TURNER: No, the first thing is we go around and see if the little blue ring is sitting on the thing, which it was. We thought, "Ah, it's not an NBN problem," because if it is it usually goes yellow or orange. We then started to shut down everything through the hotel, which we did, turned off the main routers and then turned off computers and we turned off other boosters and goodness knows what. No success. So then we concluded it's an NBN Co problem. Then you get on the phone and you ring around to the Royal Flying Doctor or the roadhouse across the road. "Yeah, ours is out too." Ours is out too." Okay, right, so we just sit and wait and it eventually corrects itself.

MR LINDWALL: Anything you'd like to add, Phil, finally?

MR TURNER: This is going to sound a little unusual and probably doesn't apply to many people, but it certainly applies to where we are. I've got to mention the road into Marree from the south. You may say that's a road issue. I still believe it's an intricate part of the communication mix and people's accessibility. I know the previous speaker was talking about schooling and education. Maybe some of the reason is the fact that they find it difficult to traverse a dirt road to get services at Leigh Creek.

Now, Leigh Creek is a struggling town at present with a closure of the mine. There's a supermarket there which is struggling. We, as a hotel, rely on that supermarket for a lot of our essential services. It's very difficult to get down an unreliable dirt road to be able to get those services when it's subject to constant road closures with bad weather, et cetera. The second part of that is that if we're talking about communications that are

going to improve the community, allow growth and development and those sort of things, if you seal that road to Marree, then you open up a completely new and diversified tourism market that we don't currently engage with. That's the two-wheel drive and the grey nomad market that we don't get into Marree.

There's a massive growth potential in that market of being able to come up further into the heart of the desert regions of South Australia which would also help Leigh Creek. But, once again, as I say, and the reason I mention it, I don't necessarily look at it as being a road that needs improving; I look at it as being a means of communication because the two are so intrinsically linked.

MR LINDWALL: Thank you very much. Mark, if you just state your name and organisation, of course, and then say what you would like to say.

MR SUTTON: Thanks, Commissioner. My name is Mark Sutton. I'm the director of the Outback Communities Authority, a state government statutory authority responsible for the administration of local government and like services in the unincorporated areas of South Australia. Thank you for the invitation to appear today before the Commission in relation to responding to the draft report from November last year.

By way of an opening statement, it's really two points, which I've alluded to in a previous piece of correspondence I provided. They are relating to the resilience of the telecommunications networks, in particular the mobile and fixed line services after power outages and extreme weather events, and looking at some of the mitigation measures that have been put in place perhaps in spite of the services that are provided by the big end of town. The second point would be discussion in relation to resilience of the non-mobile telephone service as a tool for community and economic development, along with why the NBN is not the panacea for the lack of resilience in that network.

Firstly, the resilience in the telecommunications network after a power outage and extreme weather event, it's reasonably well documented, in October last year, South Australia had a complete state blackout of power. The main grid extends into the unincorporated areas of South Australia a fair way, bearing in mind the majority of the unincorporated areas is off grid. So they actually were not disadvantaged the same way the rest of the state was at that time. They are for other reasons disadvantaged.

But in the case of the northern Flinders Ranges region as a case in point, the power went out as far up as Leigh Creek and Lyndhurst, Copley, Nepabunna, Beltana, those communities up there. The mobile phone system, which was reliant on the power supply, failed to kick in; or it failed, actually. The problem then occurred from sort of a catastrophic economic point of view as there was no mechanism for people to communicate back to identify the power had gone out.

There is historical backup generators there that are associated with the operation of the now closed mine that were not switched on. Historically, they would have been. The Leigh Creek supermarket, as a case in point, was unable to cancel a truckload of supplies which were ultimately forced to be thrown away. Leigh Creek - and I'll use the Leigh

Creek as a euphemism for that northern Flinders Ranges area - was out longer than the well-publicised and rather well-communicated Eyre peninsula region during that outage. It was out for over four days.

MR LINDWALL: How many days, sorry?

MR SUTTON: Over four days. That's a specific case in point. The more anecdotal but no less important are I'm saying extreme weather event. That's in the absence of a less descriptive word or a more descriptive word. We do have multiple situations where the ageing radio telephone system is influenced by weather. That is the only mechanism for communications in a majority of these outback communities other than more expensive technologies like satellite phones or other things like that.

When businesses are relying on that telephone service for EFTPOS and data, it goes out quite regularly during these adverse weather conditions. Well, they're not actually necessarily adverse; they're just high rain or high heat or variable conditions. That's affecting the economic sustainability of these communities and, in particular, the businesses within those communities.

In relation to mitigation measures, the Outback Communities Authority and its predecessor, the Outback Areas Community Development Trust, has invested very heavily in a system or a network of UHF radio repeater towers. We believe, and with good reason, with long-time relationship with pastoral community and the travelling community, that that is an alternative to the telephone services that exist. It's not necessarily the best system. But for what it costs and what it provides, it provides some sort of mantle of safety in communication ability.

I was in the foyer during the last presentation and I picked up on your questions in relation to resilience - well, I would argue resilience of the broader community in remote areas as opposed to 20 years ago. I, for my sins, am chair the Far North Zone Emergency Management Committee which is a subcommittee of the State Emergency Management Structure South Australia. It is clear the resilience of the broader community in relation to expectations is lower - well, lower resilience, higher expectation than what it was 20 years ago. I would argue that 20 years ago people were more prepared for remote area travel. It's just an expectation that is fair and reasonable. In this day and age you should be able to pick up your mobile phone and use it because they don't actually prepare the way they would have 20 years ago knowing that those systems exist.

The OCA, Outback Communities Authority, has recently increased its UHF tower coverage, putting one just south of Marree on Wichelina Station and has full support of the pastoral community in that area and it's increased the access for travelling public. The second one we've just installed is in the Gawler Ranges, again at the request of pastoral community; and that has been well supported. I'm not saying it's the solution, but it is a solution that we can have input into and we can fund.

In relation to my second point, the resilience of the non-mobile telephone system as a tool for community and economic development, along with why the NBN is not a

panacea for this lack of resilience, I alluded to it before in relation to the weather conditions where the existing, in most cases DRCS, or the modern version of DRCS radio telephone system, is subject to variabilities in weather conditions. When you've got businesses relying on that as their only data link for EFTPOS and others, it's unacceptable in a modern economic age.

It's been well-touted that the NBN is the solution for all Australians in its rollout. However, the jury is out and I applaud some of your recommendations and I'm happy to touch on those, if you'd like, but they're in the new paper that I've given you. That the NBN, if it works, is it can be quite good. But, again, I heard Mr Turner suggest that the satellite went down yesterday. I was in a meeting the last two days with the natural resource management board for the arid lands and two pastoralists in other parts of the outback had to go out two days ago and they were unable to communicate with the wider world.

It's not necessarily reliable yet. I would argue that we should not accept that as just the baseline for service. We should be encouraging private enterprise or further investment to increase the baseline service. The NBN, again from the research that both we have done and you may well have been touched on by Claire Wiseman this morning from the Region of Australia Far North Board, is that it is a domestic product; it is not a commercial product. Some of these businesses in the outback who rely on high quality broadband and telephony, this is not going to be the solution, especially with the shaped plans.

MR LINDWALL: You're talking about the satellite service?

MR SUTTON: The satellite service. The jury is out as to whether this is going to be the panacea for the problems that we're experiencing with the fixed line stuff. That's my opening statement, Commissioner. I've provided you with some OCA comment on your draft recommendations. Generally, we are quite supportive of your recommendations, especially in relation to remote areas. I'm happy to go through those if you'd like.

MR LINDWALL: Yes, why not.

MR SUTTON: I didn't respond to every comment because some of those are not necessarily applicable to our area. But in relation to draft recommendation 5.1, which I'm happy to read out for the benefit of the audience:

The Australian Government should reframe the objective for universal telecommunications services to provide a baseline broadband (including voice) service to all premises in Australia, having regard to its accessibility and affordability, once NBN infrastructure is fully rolled out.

The OCA's comment is: Although this is covered within the draft findings of 6.2 - which I'll refer to in a minute - the OCA has concerns based on the anecdotal community information suggesting that the NBN Sky Muster satellite system is often unreliable, generally slow - generally. I won't say I've heard - there is some opportunities where it

has gone - and a shaping of data plans does not provide satisfactory service in the context of the implied promise from the NBN advertising. The OCA would like to see a regional digital strategy developed that forms a blueprint for investment attraction in better than baseline broadband services - again utilising some of the infrastructure and, again, Mr Turner referred to the fibre optic cable that exists between Marree and Leigh Creek. Then there's no fibre optic cable from Leigh Creek to Hawker and then there's fibre optic cable from Hawker to Port Augusta, that there's a gap.

As you know, on the trip last year we've had some preliminary information from Telstra, who own the fibre optic cable to Hawker, that in the vicinity of \$1.5 million may well be the funds required to connect that. That then opens up some wireless opportunities for the surrounding communities, which would be better than the satellite system, from Marree. Then it's a hop, skip and a jump over to Roxby Downs and we can connect back into the national fibre optic system. They're just some of the opportunities we've identified within the - - -

MR LINDWALL: Yes, often not exploited.

MR SUTTON: I think that developing an independent digital strategy would allow that to look at seeking investment from the private sector and other opportunistic sources as they come to mind. Draft findings in relation to 6.2:

The quality of broadband service supplied by NBN infrastructure will be superior to the quality of service previously available across all Australian premises.

However, as is the case under the existing telecommunications universal service obligation (TUSO), the quality of voice services will vary across technologies.

- Voice service offered to premises in the NBN fixed-line and fixed wireless footprints will be of a high quality and equivalent to the standard offered under the TUSO.
- Voice services offered to premises in the NBN satellite footprint will be of an adequate quality for most purposes, but will fall short of the quality of those offered under the current TUSO in terms of latency and service repair timeframes. Up to 90,000 premises may be solely dependent on NBN's Sky Muster satellites for voice calls.

I take that as the outback more remote areas. Dot point 3:

• Whether further government support for some alternative voice service for these premises is warranted is contingent on whether the quality of NBN's services is below the baseline that the broader community would regard as acceptable for a universal service.

The OCA fully supports the findings identified in dot points 2 and 3. Then we go on to the information request that you've identified in 6.1.

Participants are invited to provide evidence on the adequacy of the NBN's satellite voice services in relation to defining an acceptable baseline for a universal service. Information on practical and cost effective alternatives to NBN's satellite voice services in areas that currently have no mobile coverage, and their relative merits and costs is also sought.

The OCA would like to see the information request to go slightly further to include voice and data services rather than just voice. It remains unclear if the NBN satellite service will adequately support more than basic voice and data services in remote areas.

Draft finding 6.3:

In terms of the availability and accessibility of telecommunications services, certain groups of people with particular needs may experience difficulties following the full rollout of NBN infrastructure and in the absence of the telecommunications universal service obligation.

The costs of providing specialised services to these groups are likely to result in providers not offering the services, or providing them at a high price. Notwithstanding that technological advances could reduce these costs, the particular needs of some people in these groups warrant targeted government intervention.

The groups most likely to experience difficulties include: people with disability and life threatening conditions; Indigenous people living in remote settlements; some older people; people with no fixed address; and a small number of users of emergency services within the NBN satellite footprint.

The OCA's comment: The OCA fully supports this finding, however, would like to see the inclusion of all people living and working in remote settlements.

Draft recommendation 7.4:

Before proceeding to the next round of funding under the Mobile Black Spot Programme, the Australian Government should implement the Australian National Audit Office's recommendations relating to that program. It should also: target the program only to areas where funding is highly likely to yield significant additional coverage; revise its infrastructure-sharing requirements to be consistent with the Australian Competition and Consumer Commission's findings in the ongoing Domestic Mobile Roaming Declaration Inquiry; and prioritise areas for funding based on community input - rather than nominations from Members of Parliament.

Rather contentious, Commissioner. However, the OCA's comment is: The OCA fully supports this recommendation, in particular the prioritisation of areas for funding based on community input.

Finally, the draft recommendation 7.5:

The Australian Government should establish a funding program for a form of community telecommunications service (such as payphones) that targets locations where premises do not currently have a satisfactory alternative voice service, such as a mobile service. This program should target particular needs and be flexible for delivery to such communities. This program should involve a competitive tendering process to allocate funding.

The OCA's comment: The OCA fully supports this recommendation, however, would like to ensure that this recommendation does not disadvantage those communities as they seek to secure a mobile service.

MR LINDWALL: That makes a lot of sense. Thanks, again, for the trip last year. It was very interesting.

MR SUTTON: Thank you.

MR LINDWALL: Now, could I ask about the blackout that occurred, because I'm curious about - obviously some communities have had - such as Marree, they have generators. So they weren't affected by it. But presumably all the areas that were affected by it not only lost their mobile phone coverage, they would have lost their landline too because the nodes had all been affected.

MR SUTTON: Yes, that's correct. So that the mobile phone system in Leigh Creek, which is the most northerly one in that particular part of the world, has a battery backup system and a power backup system. It's a Telstra 3G service, it's not a 4G service. It had a battery backup for a period of time and then it died. The landlines went out straightway. Now, that service is a wonderful service, but was put there was a result of the mine 30 years ago. I would expect, but I can't guarantee that, but that's what I would say was the business argument for it at the time. It is only a 3G service. It is limited by the rack system that brings the service up is my understanding. So, yes, the community were without communications for four days.

MR LINDWALL: The UHF radios, do they work when there's a blackout?

MR SUTTON: Yes, they do. They're a solar-powered system with a battery backup. We have a service contract. They are generally 24 hour, seven days a week, all weather condition. However, they are susceptible - because they are a tower - to lightning strikes, which can drop them out. Unfortunately, the Commonwealth Government have seen to, through technological advances, move over to a more modern digital system, which limits the purchasing public to an ageing 10 or UHF system which is not as compatible with the 40-channel old system that we're doing. However, the upgrades to put these into the 80-channel UHF system is a slowly rollout system from our perspective because of the cost implication. Each UHF tower costs us in between 15 and 50 thousand dollars to install.

MR LINDWALL: Okay. So quite smaller than a mobile tower, yes.

MR SUTTON: Yes, they're a much smaller tower, but they are somewhere between 50 and 100 feet high, depending, and they're guy-wired. They are line of sight, essentially, so they're the highest point of ground. We don't link them together because the communications probably won't allow us to do that, which is a bit silly sometimes. We disagree with that and we've had a rather celebrated discussion/debate with them recently over that particular situation.

MR LINDWALL: That's interesting. I know a bit about radio frequencies. But HF radios, of course, have much higher range, but they're not good quality. But UHF is pretty high quality.

MR SUTTON: I mean, you can go to your average electrical supplier like an electrical store and you can buy a UHF radio for a couple hundred dollars, a repeated one, one that has a repeater function. Twenty years ago every car had one, whereas the HF radio, once you install that in your vehicle and you knew how to use it, you wouldn't get much change out of 2 or 3 thousand dollars. In that case you may as well buy a satellite phone.

You may recall that in a previous life I was a police officer and one of my previous colleagues is sitting in the room. Hello, Aaron. We were both stationed at Oodnadatta and we used to hire satellite phones as a base. We were an agent for people travelling in remote areas between us, Birdsville and Marree police station because of the tyranny of distance and the lack of mobile phone coverage.

MR LINDWALL: Obviously there's been some progress with the - for example, Marree now has the Sky Muster used to a much greater extent than it was used last year. But what's your feedback on the reliability of that? Do you think the community is distrustful of assurances that it's just a temporary problem while they get it all set up and it will get better.

MR SUTTON: There's mixed responses. Some people have had some wonderful experiences. Phil Turner, he's mentioned to you his EFTPOS is running better than it has. I think it's a horses for courses situation. Each individual has their own story. I can only sort of do the anecdotal thing of the people that I run into from time to time. There's a mixture of responses. I think that still the jury is out on the reliability. At the moment, all things being equal, they can pick up a fixed line phone in their house, albeit it might be a radio-linked phone, and 99 times out of a hundred it's going to work.

Yes, it's an expensive, old technology in some ways. But the NBN is, again, on the balance of probabilities or balance of information, not as reliable as that. There's genuine concern over the data shaping. There is genuine concern that it is being touted as a panacea for all. It is clearly not a commercial product; it is a domestic product. For example, and to perhaps corroborate that, we have just taken over the administration of Leigh Creek. Our public servant employee who is now based in Leigh Creek who is the town manager, we have lost access to the Flinders power data, the way they would communicate between Leigh Creek and the rest of the world.

We've actually, with the support of Telstra, are trialling an Iterra satellite system at \$3,000 a month to give one man, one person, access to megabytes up and down. If it wasn't for Telstra giving us the trial of the equipment - I mean, that's the cost of using it, but the equipment - this is a very expensive solution. However, the Department of Planning, Transport and Infrastructure, who is our parent agency, is quite accepting of that as the best solution because the 3G system is not adequate enough for our needs. So that's how we've had to solve that problem.

The average business in the outback could not afford \$3000 a month for an Iterra system, especially if they're looking at Wi-Fi'ing that and how do you recover the cost when there's a community expectation that Wi-Fi is free? So they're some of the links with the satellite that we're having.

MR LINDWALL: Yesterday in Melbourne a gentleman rang in from near Broken Hill and he's on the Next G wireless link which Telstra provides. Do you know anyone around this community that might be using that type of - - -

MR SUTTON: Next G? Is that CDMA technology?

MR LINDWALL: It's beyond that, I think. It replaced CDMA, yes.

MR SUTTON: To me, I would understand that as being 4G. I would have thought 3G, 4G, 4GX and all those other ones that are coming through.

MR LINDWALL: It seemed it replaced his fixed line service.

MR SUTTON: I'm just assuming that's a mobile system of some sort.

MR LINDWALL: It is a mobile system of some sort, yes. I didn't know about it until I heard about it yesterday.

MR SUTTON: My understanding of the mobile system - and I do hear criticism of the Telcos in the unincorporated areas. We live in a world of the way it's regulated it's commercial. Whether I agree with it or not, I understand the commercial imperatives of providing a service. We have been working with both Telstra and Optus in our capacity as a government agency - so no names, no pack drill sort of stuff - but we're quite heartened by some of the small cell technology stuff that Optus are leading with, but we know Telstra are playing in that area as well. Some of the more remote communities, Oodnadatta, who have been trialling an Optus small cell stuff, on the balance, it's actually a better service than they had before because they had nothing.

We understand William Creek will probably get that service eventually and I believe Marree will go down that road as well. Some of the bigger pastoral properties, that could be a solution for them as well. The ironic thing is that people are perhaps disappointed by that because it's not Telstra because of the phone systems they've gone and bought, because of the old CDMA country systems and what have you. That's life. We just have

to get over it. My staff carry two phones when we go to Oodnadatta; that's the way it is.

MR LINDWALL: At least you get some coverage, don't you?

MR SUTTON: Exactly right, and it's good enough for emails. I mean, I'm not streaming Netflix. I can get an email.

MR LINDWALL: The submission, of course - thanks for this and we'll consider it. But our recommendation about having community input for the Mobile Black Spot Program, I'd be interested whether you have some advice on how we can best manage that.

MR SUTTON: I think I'd use the local government mechanism to do that. There's no doubt the federal members are probably doing that to a certain extent anyway. However, the federal members in these situations, which I'm now well aware, are told they've got X amount of dollars per electorate and they've got to make a judgment call. I'm not questioning their judgment, but in the most transparent of processes community views will have a fair weighting rather than a political solution. We live in a world that should be more transparent. That's why I would argue that side use the local councils as that mechanism.

They're not going to be silly about it, I wouldn't have thought. But the communities themselves, they will get a bit parochial but someone's got to sort that out. So that's the councils would be better filtered for that.

MR LINDWALL: That seems sensible and we'll have to come up with some ideas on that. You mentioned the Optus small cell program. There's also some of these community payphones and Wi-Fi spots through a Prime Minister and Cabinet program.

MR SUTTON: Yes.

MR LINDWALL: I think they have 20 gigabyte monthly download limits. Have you got anything that you could comment on those and their success?

MR SUTTON: The remotes areas of South Australia, the remote areas of the Northern Territory and the remote areas of Western Australia are not the same as the remote areas in Queensland, New South Wales and remote Victoria, if there's such a thing. The capacity, the American term "we don't know what we don't know" is quite appropriate. We just don't have the resources to play with the same people in Queensland and New South Wales who just have much more capacity and much more political clout to attract Commonwealth interest.

The OCA has got nine people and we look after 8 per cent of Australia and geographic area of 4000 people. We're very sparse in population, we're big in area. The solutions that might be appropriate for western Queensland and western New South Wales just don't apply. Yes, I'm aware of some of these programs. The RDA would be our conduit into knowing about that. I sit on the RDA boards, I'm aware of some of those through those aspects. We will pursue those in amongst the other priorities of clean

drinking water and reliable power that we have to deal with, although, I must say, that telecommunications is becoming the highest priority in remote areas at the moment above drinking water, believe it or not.

MR LINDWALL: That is amazing, yes. Now, that example you gave, Mark, about Leigh Creek to Hawker, the fibre optic that \$1.1 million - - -

MR SUTTON: \$1.5 million was a back of envelope, an estimate from - and I don't want to quote Telstra as being definitive but that was an indicative - - -

MR LINDWALL: It doesn't matter, whatever the amount is. Is the constraint the money or is the constraint something else? If you had the money, would it be able to happen?

MR SUTTON: You'd have to ask Telstra. It's theirs to Hawker. Do we use our ability to attract as a public institution probably taxpayers' money to give to a private enterprise to build their company model better? Does the end justify the means? Maybe it does. I don't know.

MR LINDWALL: That could be individual communities' decisions.

MR SUTTON: Correct. A deregulated fibre optic cable, that would probably be more attractive. It may not be able to be achieved. So something is better than nothing. Yes, the impediment is the dollars and how do we attract those dollars. The majority of the funding programs that exist in Australia at the moment require some sort of matching fund. And that's just not possible.

MR LINDWALL: That's a good point, actually. I think my final question at this stage would be if you have a reliable satellite service and a reliable mobile phone service in a particular premises, would that be sufficient to do away with landline?

MR SUTTON: At a philosophical level, yes. At a reality level it's effectively not going

MR LINDWALL: Because you don't think it's reliable at the moment.

MR SUTTON: If it was reliable. The short answer is yes, that would be acceptable. But it's not going to happen. You're never going to get a mobile phone service into Mungerannie because the track - I mean, it's just not possible. So they need an alternative for when the satellite goes down.

MR LINDWALL: Which is why we said in our report for the 90,000 premises that are not covered by mobile phone that some targeted intervention be given, an alternative voice communication at least would be warranted.

MR SUTTON: Since we last talked, I attended a conference in Albany in Western Australia, the Sustainable Economic Growth for Regional Australia Conference. There's

quite a few speakers in relation to digital planning for remote areas. Again, the Queenslanders and New South Wales have done some great work on this. We just don't have the capacity to do it. But we do need to come up with some sort of blueprint for how we cannot rely on what we're given as opposed to go out and attract what we can get, if that makes sense.

Given a blank canvass, there are some great opportunities out there for solutions that are conducive to remote people's needs in remote South Australia. Remote Western Australia and remote Northern Territory that is not necessarily the same as what's happening in the more urban areas, the more populated areas. I think some investment to get that done. It's got to be in the government's interest to do something like that because we're not relying on their money for the solution; we'll go out to the market. There's some innovative technology around the world that we can utilise.

MR LINDWALL: Yes, quite. Now, did you have any final comment?

MR SUTTON: No.

MR LINDWALL: Thanks again, much appreciate the comments and the help and contribution over - well, the visit as well. That was fantastic.

MR SUTTON: Sorry we turned on the great weather for you. Thank you.

MR LINDWALL: I think we've got Aaron Stuart now; is that right?

MR STUART: For the record, my name is Aaron Stuart. I'm heavily involved with native title within South Australia Arabunna (indistinct). Probably the same concerns as Phil and Mark have mentioned in the earlier part but listening to the dialogue and I'm not au fait with everything, especially with the recommendations. But I would hope the federal government will have like a - in their heritage type setup for the Far North for Indigenous communities.

I think looking at that also that how state and federal government are working together - and I know Mark is with the Outback Areas Trust - I think how our state is going now we're looking at regional authorities being - and those that are looking at native title groups. If I could go a bit past that. If the federal government was to look at that sort of planning in dealing with Indigenous communities, I'd prefer it that it wouldn't go down that track. The reason why I say that because a lot of Aboriginal communities are mixed and they're not particularly all from the one native title group.

In 2014-2015, we did an assessment report and we looked at climate change and adaptation within country in the isolated areas, and a part of that was communications. The report showed that within the next few decades, the climate change, I think there's going to be a spike, a degree of about 3 per cent. So coming from the Marree area or the Flinders Ranges or the state's Far North, how we provide that service to that community. I just find it hard now where we haven't got anything set up and a lot of the, I suppose, planning of a dialogue hasn't involved the Aboriginal groups from that area.

What I'm asking is that can the federal government look at Aboriginal people for their high risk of morbidity - - -

MR LINDWALL: Sorry, could you speak up a little bit?

MR STUART: Has the federal government looked at communities - we're looking at communities. But what I'm saying is with the report we looked at we showed that Aboriginal people are more at risk of morbidity through climate change. There'll be heart disease, renal failure. In the state's Far North though we need communication. Not reading your report, have you taken that into consideration in recommendations? No? Yes?

MR LINDWALL: Well, one of the questions we asked in the report was whether there should be some targeted telecommunications programs for remote and Indigenous communities. I think most of the feedback we've got at the moment tends to be yes. They cite these programs, for example, run by the Department of the Prime Minister and Cabinet that provide community Wi-Fi payphone type things. Some of them are free often times.

MR STUART: The reason why I ask that question is because we've got Marree but we've also got the Outback Areas Trust in there and you've got your local government committee in there. But then you've got your homelands. You've got Finniss Springs or you could have Yatala, this side of Hawker. What I'm saying is there's two different elements there that they should be dealing with, and yes.

MR LINDWALL: Which is exactly why we thought that it should be targeted interventions suited to the particular communities, some of which are more mobile than others, obviously, and who are physically moving than others.

MR STUART: For me personally, is there a thought of a recommendation on a heritage survey type plan for any infrastructure if anything happens? Say the federal government want to put infrastructure out in the Far North, has there been a heritage survey plan thought about to be done by the federal government?

MR LINDWALL: You're looking at the old telecommunications services?

MR STUART: Yes, or upgrading.

MR LINDWALL: We didn't have a particular recommendation about that. It was more about we're building upon what is already there, leveraging off both the national broadband network and the organic growth of the mobile phone network and then trying to fill out gaps that might lie in there somewhere. I think our view would be that we don't have a particular view that it should be a one size fits all intervention.

MR STUART: There's no engagement policy, anything with like, with Aboriginal communities?

MR LINDWALL: There should be an engagement policy, yes. But you're talking about now in this particular area.

MR STUART: Yes, whether the report set it out. Yes? No?

MR LINDWALL: Maybe we should talk about that a bit more in our final report.

MR STUART: Because I think if you're dealing with native title groups that's very important.

MR LINDWALL: Yes.

MR STUART: But also like you've got native title, then you've got Aboriginals that are not from that area. There was another question or another idea where - I think around isolation. There was a fatality where a lady died, perished. Civilisation would have been about 30 kilometres away. A day like this. Hubby was in the car, found him, he was sleeping in the backseat of a troop carrier. But where I'm going with this, especially in the Far North when you're off the beaten track, I think there should be more of an emergency type communication for those isolated areas.

We might have Outback Areas Trust, we might have Marree, we might have those groups and those communities. But I think further north when you're talking about where your tourists come internationally, say round the western side of Lake Eyre, there seems to be no help out there. I know Mark talks about high frequency radios and communications as (indistinct). What I more or less would like to see in those isolated areas are emergency phones. If we could look at that for safety of obviously human life.

MR LINDWALL: I understand quite a few Indigenous communities use mobile phones with a Wi-Fi hotspot.

MR STUART: Yes.

MR LINDWALL: Do you know if any of them that have bought these satellite covers that go on mobile phones or have they been provided which allow you to use satellite service or emergency, which isn't - it's expensive to use it on an everyday basis, but for emergency calls it would - - -

MR STUART: I think you'll find telecommunications, especially in the more isolated areas, is still a bit of a new thing with the Aboriginal community, the technology and understanding it. I suppose if it was rolled out right and put into communities it would not understanding the mechanisms on how that works, yes.

MR LINDWALL: We heard some evidence earlier in the inquiry that some of the traditional payphones that were around, often they are not working when people need it or say a person who's subject to domestic violence is reluctant to go to a payphone which is in a public place and it's pretty obvious who's making a call, whereas the mobile option

gives you a little bit more privacy. That was some of the testimony we got that was quite a positive move to have a hotspot type of situation where there's a reasonable range and you can use the mobile phone for that purpose.

MR STUART: For that example, yes, in this type of area, the metro or the more urbanised. You always have your problems with your ins and outs of signals and stuff.

MR LINDWALL: The other concern that I heard was the use of prepaid mobile phones where you have to - these are not in the free Wi-Fi zone, they actually use the mobile phone connection where the data runs through - sorry, the calls run through pretty quickly and then they're more expensive than getting a contract and the phones might be shared amongst a number of people. So it's very easy to get a quite large number of cost amount quite quickly.

MR STUART: All those problems, phone use, overcrowding, yes - the phone isn't - obviously an expensive thing. But I must admit I'm sort of getting confused. Are we talking more isolated or are we talking in general service around phone - - -

MR LINDWALL: This is about telecommunications and it's based upon the analysis of the Universal Service Obligation, which is a fixed line to the premises, plus the payphones. We've broadened out a bit. We said in our draft report that it should be not just voice, that data is now important in society and we all understand that, and that it's being used for a whole lot of purposes.

MR STUART: Have you thought about with Aboriginal groups in communities perhaps looking at procurement of certain contracts? Like Mark was talking about telecommunication Telstra and all that. Now that we're getting - or Aboriginal groups are getting land back, if you will, have you thought about making them part of the rollout of any system that we may deliver?

MR LINDWALL: We basically said there should be targeted intervention. I don't think we've gone beyond that. We don't want to - I think my view is that you have a generalised system that covers 99 per cent of the population.

Then for those that are in disadvantaged or remote areas or for whatever reason, we cut it into three ways, which was availability of the service, which we thought government intervention through the NBN and others appropriate, the affordability of the service and the accessibility of service. For example, people with disabilities accessing the service. We thought we'd cut it that way and then analyse what type of programs, if you like, or what types of supports should be targeted to each of those. The affordability, we thought in general but not always it should be through some sort of consume subsidy.

MR STUART: I've got an uncle in the community always - he's about 73, got a little pocketsize phone, got the shakes, can't afford a house phone for emergencies and stuff like that. I think if you can work in something like that for our elderly folk - - -

MR LINDWALL: Yes, something fairly simple, in other words.

MR STUART: Yes. But what I'm trying to say is with telecommunications, I think there's got to be an adapt element to - where I'm going with this is that the climate is changing and more Aboriginal people doesn't - and non-Aboriginal people, I suppose, are more at risk of health problems. I think communication is very important. But what I'd like to raise is that the next decade or so communication, they're going to need that and it's going to have to be simple. Whether that's rolling a system out through local health organisations to those that are on like closing the gap stands and stuff like - where it's part of that and part of that structure just for that safety.

MR LINDWALL: I think you're absolutely right. I spoke to Martin Laverty at the Royal Flying Doctors Service and he showed me something that is being used in some of their areas - it requires a mobile phone. But it has an ECG reader on the back. So that a person who has chest pain or something can use this. Its diagnosis is sent through to the RFDS doctors and they can see that this person has got an angina attack or this person has got a cardiac arrest. Rather than just sending the doctor there straightaway, they can say, "Well, this way is angina attack, take the nitro-glycerine with us," or whatever it might be. That way you can optimise the support much quicker than having doctors automatically.

MR STUART: I think another thing I've noticed is that with communications, especially mobile phones, knowing the systems how they operate - but things like overheating. A day like today someone will be sitting down, could be - and all of a sudden the phone is not working because it's overheated. Just simple little things like that. I think Aboriginal people need to be aware of how they, I suppose - - -

MR LINDWALL: Exactly right. A mobile phone won't operate above a certain temperature if it's kept in the sun.

MR STUART: Yes. You leave it on your dash when you're driving or something like that, yes. But definitely I think around safety aspects for Aboriginal people, in particular the elderly, are more at risk, those suffering from mental health.

MR LINDWALL: You're talking about some sort of educational program?

MR STUART: Yes. But, also, when you talk about Outback Areas Trust and you've got your local councils, always remember that there is an Aboriginal group within there and it'll probably come under an ORIC type formation or something like that. Just to keep that in the background. I was listening to Mark. I was a bit late. But a lot of the infrastructure stuff, I do think the federal government should have a heritage survey action plan, meaning that if there's going to be implementation of infrastructure rollout, whatever system there is, on ground, that there should be a strategic plan on how to do that.

MR LINDWALL: You're quite right, yes.

MR STUART: And probably part of that process will be an engagement policy; you'd

probably need to look at that, especially the further north you go.

MR LINDWALL: Do you know Daniel Featherstone?

MR STUART: No.

MR LINDWALL: He was from Alice Springs, IRCA. He was telling me a lot of these he covers the Aboriginal groups mainly around Alice Springs, I think, yes.

MR STUART: I'm thinking here. The technology available now, is it available out say somewhere away from 3G out in the bush? Is there a technology that is battery operated that connects straight to a satellite where isolated communities can use for emergencies? Is that available now? If so - - -

MR LINDWALL: There's certainly satellite phones. You would have to charge the solar-powered ones I don't know.

MR STUART: Where I'm going - so for communities or something say north of Marree, you've got a homeland of population 30 or 40. Would the federal government invest in providing something like that for that community, something simply like that, just one phone out there?

MR LINDWALL: I don't know the answer to that. We can certainly raise that with the Prime Minister and Cabinet department.

MR STUART: That's what I'm trying to ask here. I'll use Marree for example. You've got Marree, you've got those that are in industry involved there and obviously social media and all that is good for business. But I'm going back to the safety of Aboriginal people.

MR LINDWALL: Yes, I understand.

MR STUART: If something could be done, whether it be subsidised, for isolated communities where they can have that telecommunications, yes.

MR LINDWALL: We did say quite clearly in our report that Aboriginal communities in remote areas are much more at risk than obviously elsewhere. Aaron, did you have any more points you'd like to raise?

MR STUART: No. Sorry I'm shooting from the hip. I'm not too au fait with the report.

MR LINDWALL: I'm glad you could come.

MR STUART: No worries.

MR LINDWALL: Thank you.

MR STUART: Cheers.

MR LINDWALL: Have we got Tony Smith here? Thanks again, Tony. Please introduce yourself.

MR SMITH: Tony Smith, I'm the owner of Rawnsley Park Station, which is a tourism resort near Wilpena Pound, about 140 kilometres north of Port Augusta. I'd just like to perhaps share my experience of telecommunications running a business and having personal access. I guess the main point that I would like to make is that running a business in today's world you need internet access and you need good speed and you need decent data download.

Today we use cloud-based systems for our booking systems and for accounting. It's absolutely essential that we have internet access. Currently we use the mobile signal that comes from Hawker, which is about 40 kilometres away. We're right on the edge of that signal, but we have installed a tower on a hill that then redirects the signal down to our office and we also use that signal for Wi-Fi for our guests staying. At the moment we've got three data cards with Telstra, three 50 gigabyte data cards that we use up pretty well regularly on a monthly basis. That's costing us about \$450 a month for that 150 gigabytes. Then when we go over it's another \$10 a gigabyte. Quite often our Wi-Fi bill is \$700 or \$800 a month for access.

I guess the really critical aspect, apart from running a business, is the availability of mobile phone or Wi-Fi to our guests, particularly international guests and Australians.

MR LINDWALL: Because they expect it.

MR SMITH: They expect it. If they've got plane flights to confirm or accommodation to confirm, then they really do not want to be off the net. It's just critical. We're one of the sites that's been chosen for the Optus mini cells that Phil Turner mentioned. I've got some fairly major concerns with how that's going to work. I've been informed that they're only a 50-channel system. It's only hearsay, but I believe that's what they are. They are connected via the satellite. So there's going to be a delay, I think, with the voice transmission on those.

As Phil says, we think we may have been sold a lemon with these. This is the mobile hotspot. There's seven sites in northern South Australia that have been told they're going to get these systems in the next 12 months. Yes, I think that's - as far as some of the other speakers have said about the Universal Service Obligation, I just really think we should be thinking outside the square here a bit. Previously it's been a landline system that provided that service obligation. The Commissioner has said that in not very long that copper-based network is going to be uneconomic to maintain. So we should be looking at the other options.

I would have thought that the fixed Wi-Fi is a really important part of that because you consume Wi-Fi hundreds of kilometres if you have line of sight towers. It would have to be a far more productive way of providing service than with landline.

MR LINDWALL: Thank you, Tony. We have an issue where the Telstra mobile network, as far as I understand, covers 99.3 per cent of the premises of Australia and just under 30 per cent of the geographic area of Australia. How to fill that gap, if you like, with a reasonable economic sense - in other words, it doesn't cost a bomb. So technologies that can fill that will be quite useful.

I did hear from Optus. Optus appeared at our hearings in Sydney and they spoke about these mini cells and sounded quite all right to me. I don't know, I haven't experienced one and I don't know what they'll be like in practice. But they seemed to be that they were a fairly reasonable cost way of delivering a service that otherwise would not have gone somewhere. I guess proof will be the pudding when you actually see what they're like.

MR SMITH: I think there is an issue with that service. What is that service hoping to achieve? If we're putting in a mobile service that will benefit the residents of small communities in the outback, then the Optus cells are probably going to achieve that. But if you're hoping to provide a service for travelling public that is a very important part of the economy of the outback, then I don't really think it's going to do that very well and I would have thought that those sort of installations would be far better to provide sharing with the various mobile providers.

MR LINDWALL: I had the impression - maybe I'm wrong - that it was effectively like a mobile phone service.

MR SMITH: I don't think so. I think in order to access these mini cells you'll need an Optus card. Probably 70 per cent of the visitors are not going to have them.

MR LINDWALL: Maybe that's true, I don't know. What about the tower you put up on the hill to increase the range of the mobile service, did you have to get approval - I mean, how does that work? And how effective is it?

MR SMITH: We didn't get approval, Commissioner.

MR LINDWALL: That's all right. I don't know whether you need approval or not.

MR SMITH: We did get advice from a Telstra technician who said it was a good idea. But, yes, what we're doing is we're retransmitting the data signal. It would be nice probably if we had some technical expertise in the room. But my limited knowledge is that the mobile signal, we think of it as mobile signal but it's not; it's data signal and voice signal. So there's two frequencies coming through. What we're doing is retransmitting the data signal down to the office. Then from the office we're retransmitting that on Wi-Fi around the property, which gives most - - -

MR LINDWALL: Is that a 4G service?

MR SMITH: That's a 4G service.

MR LINDWALL: That's data only, so, yes.

MR SMITH: It's far better than the 3G. It's 10 times faster and quite reliable, seems to be quite reliable.

MR LINDWALL: 4G is a very good service. I did a speed test in the middle of Sydney and got 140 megabits a second out of it.

MR SMITH: We're getting 20 to 30 megabits a second with this retransmission. So it's very - we're quite happy with that. It's just the cost, but we're hoping Telstra will do something about it.

MR LINDWALL: Do you know other people who have followed this to extend the network? Some people use - what are they called - those little antennas in that - - -

MR SMITH: Yes, we've got some of those for the voice signal in a couple of spots.

MR LINDWALL: That's the 3G service then.

MR SMITH: Yes. That works reasonably well. But the 4G is definitely better.

MR LINDWALL: I can imagine, it'd be fantastic.

MR SMITH: And 5G will be even better.

MR LINDWALL: Around the corner. Technology does improve, obviously. I think that's one of the messages we wanted to say in our report, that government shouldn't try and lock in a particular technology that might provide a disincentive to bringing in better technology.

MR SMITH: That's right, and, as you've said earlier, I think what we should be looking at is trying to encourage any new technology that can provide the service and then the Sky Muster becomes the backup for those areas that can't be accessed. Trying to get the best possible result for the least cost.

MR LINDWALL: That's the 4G mobile service that you're getting through that.

MR SMITH: Yes.

MR LINDWALL: Are you also on an NBN package?

MR SMITH: Not personally. A couple of our employees have taken out the NBN where they've got children and they want access for the kids.

MR LINDWALL: Because the data that you're buying, the 150 gigabytes for 450 a month, I think you said, is not exactly cheap.

MR SMITH: No.

MR LINDWALL: Mobile data is not cheap, obviously. It is limited. You could have had a NBN service as well but you don't think it's worth it. Is that what you're - - -

MR SMITH: Well, yes, we made the decision to put in the equipment and go with the mobile signal which we knew was working just before the Sky Muster came in. We'll probably have to make a decision which way to go.

MR LINDWALL: The balance, I guess, for you about whether you could use some of the data through the Sky Muster at a lower price and - - -

MR SMITH: Yes, that's right.

MR LINDWALL: What about a landline?

MR SMITH: We have a landline but we're about 20 kilometres from the exchange at Wilpena. So it doesn't - we used to get data on the landline.

MR LINDWALL: The ADSL?

MR SMITH: Yes, but it's right at the limit of the distance.

MR LINDWALL: So it would have been quite slow.

MR SMITH: Yes.

MR LINDWALL: I think you've found what you prefer, obviously. Any payphones around?

MR SMITH: Yes, there's three payphones on the property.

MR LINDWALL: Do they get used much, do you know?

MR SMITH: Yes, they get some use. I think if there was good mobile coverage they probably wouldn't. Every tourist that comes has a mobile phone. It's just what people do.

MR LINDWALL: What thoughts do you have about the Mobile Black Spot Program, given Phil's comment where he said that his impression seemed to be that the Mobile Black Spot Program was allocating a new service or the Optus small cell instead.

MR SMITH: I guess we're unsure of how good the service is going to be. I would have thought that if there was sharing between the networks, that would be much more useful than a single provider providing that - - -

MR LINDWALL: The ACCC, the Australian Competition and Consumers Commission, is doing a - I said that earlier, I think you may have heard it. They're doing a study into that at the moment about mobile roaming.

MR SMITH: Okay.

MR LINDWALL: Any other final points then, Tony?

MR SMITH: No, I don't think so. I think there's two issues, as I see it, or probably more than two. But the principal issues is providing guaranteed service to residents of the outback or isolated areas. Then the other issue is to provide a business environment that allows us to try to grow our businesses. They're a little bit different.

MR LINDWALL: I should have asked about your tower. Is that powered by solar, I guess?

MR SMITH: Yes, that's by solar.

MR LINDWALL: So when the power outage happened - - -

MR SMITH: No, our system worked well, but the mobile tower in Hawker ran out of power eventually back in September. But that's unusual. It's been quite reliable.

MR LINDWALL: Thank you very much then, Tony.

MR SMITH: Thank you.

MR LINDWALL: Have we got Christina now? If you could just say your name for the record and then just say what you'd like to say.

MR WAKELIN: Barry Wakelin from Kimba. I just want to explain recent experiences with the landline and without a mobile service.

MS WAKELIN: Christine Wakelin. We live some 20 ks, like Tony, very similar situation in many ways. We try to run a business with no mobile coverage, therefore, no and we had relied on our data for that, for the mobile coverage. So we've got what we call communications hill. We sit up on a hill a kilometre from our farm and try and get it. So we're looking at various options, but we need it for safety and for business, as do our little exchange area, which probably takes in 20 people who run similar businesses to us and need more surety of phone coverage and for our business as well for data. That's basically it. Barry might like to just go through a few problems.

MR WAKELIN: It's just a coincidence of events which brings us here as much as anything, I suppose. That is that - well, we weren't really - until coming up here half an hour looked at the terms of reference and the responses and the general reasoning behind it. So we're quite raw to it. But in the last month we've had our landline, because that's what we rely on, it's been down for up to three weeks. But it was Telstra the service

provider that was one of the interesting responses where they told us - there was about 20 of us say in the exchange area - and said that, "Well, there's really not a problem, your service is okay. You're the only one. If there's a problem, you're the only one."

Then we were told that we'll have to charge you if your instruments are inadequate, suggesting that we were the problem. I don't know what these people think, but the reality is that we do talk to each other out there. In talking to each other we found that we had 20 people who didn't have a phone and we'd been told that we were the only one; and they were getting the same story. So we were provoked, so here we are today. I note the comment about the \$3 billion - - -

MR LINDWALL: Three million a year.

MR WAKELIN: Yes. There'll be an issue for a long time. I believe that the - I've had some experience in the USO back 20 years ago and looking at Telstra's costs and it was always very hard to vindicate and justify. Perhaps the two or three final comments would be that the comment that our neighbours and friends of 70 years were making, "Well, this is the worse it's been for 50 years." Our communication is - we're obviously at that stage. When we have such a failing on our landline it's - people are - well, they're provoked.

I'll just finish by saying as far as the USO - and I note that it's about USO going rather than staying and there's all sorts of good reasons why it should go, I can understand that. But particularly for Australians who may witness a deterioration of service at this time, which is a remarkable observation for all to consider, but even more remarkable for those directly affected. We come with this immediate background, and I am sure - I regret to have to share it with you, but it is a negative story and we simply say that the answer is the mobile services, the data and the whole lot. We're interested in the 4G/3G discussion earlier.

But I think that - we know the technology is there to get our mobile to work. We know even mobiles can be made to work a lot better. That's if you have my mobile with the plug that allows the aerial to go in, which is quite difficult to find these days, or is impossible from my perspective. There was a machine called Telstra Day for a while that did it a little bit. But I had other problems with that. We are in need of something that works and at the moment we don't have it. We don't have it in the mobile, we don't have it in the data and we don't even - too regularly we don't have it in the landline. I'm sorry, you call it a fixed line. We call it landline fixed line.

MR LINDWALL: Landline is fine.

MR WAKELIN: And we know what we're talking about. That's all I can really contribute today and to say that the people that can develop the technology for our purposes - and I think the knowledge is there and I think the technology is probably that far away from - because we know, we've got Chinese devices which can do it. Then, of course, the galahs get at the cable and then the wind comes and blows the thing off course. My wife who loves the phone and naturally with family and grandchildren and

the whole lot, it is something that communication hill is our way to survival. Thank you.

MR LINDWALL: The landline, how is that provided? Is that a straight-out copper connection or is it a digital concentrator, do you know?

MS WAKELIN: No, we understand it's through our exchange through copper service. We do have a lovely big optic cable running through our place. But, of course, the only use it is to us, they give us a small fee for a building that's on it. But, of course, if we penetrate those optic fibres when we're fencing or whatever we're in a bit of strife. Can I add to Tony's Optus mobile? We've been travelling - we were travelling through regional New South Wales/Queensland quite recently and we go to use our phone; service not available. We presume it's that mobile coverage that Optus could provide to an area but it wasn't available on Telstra phones. So that may add another dimension to yours, Tony, about whether it's acceptable for right across the use.

MR LINDWALL: It's hard to know. Optus specific tower but you don't have to have an Optus - except for emergency calls.

MS WAKELIN: Yes.

MR LINDWALL: They work across all networks.

MS WAKELIN: That's good to know.

MR LINDWALL: That's important to know.

MS WAKELIN: That is important to know.

MR LINDWALL: Have you got an NBN service?

MS WAKELIN: We haven't got an NBN service. I have to say we did have NBN satellite and when we got our you-beaut device that allows mobile without the galahs and so forth, we actually cut that out because we were using our hotspot from our mobile devices. But once that went down, of course, we haven't got anything. So back to communications hill or the local town.

MR WAKELIN: But, of course, no voice.

MS WAKELIN: But no voice for that. We even actually did cut out our landline for a while but then we were forced back into it because no mobile coverage.

MR WAKELIN: We were finding with it that we were (indistinct).

MR LINDWALL: This is often things in life, yes, but have you thought about Tony's solution about having some sort of tower?

MS WAKELIN: Well, I was just going to mention I've been talking with our

neighbours who are a little frustrated and run million dollar businesses. They get thoroughly frustrated when there's no data and no voice, no nothing. We were looking and we had discussed whether there is something we can put up. We've got a good-sized hill nearby. In fact, two good-sized hills, one of which would probably cover - well, both of them would probably cover some of the national highway. We don't know - and might have a chat to Tony later about this - whether there is some support we can get for these 20-odd people or 20-odd businesses that would be able to use it. That's another option that we do have to look at. That would solve a lot of our problems if we could get that because our little local town is only 22 ks away. But we just happen to have a hill in the middle of it that cuts us all out.

MR WAKELIN: As you'd be aware, the signal - we're closer to the tower but the signal goes further and a place called Buckleboo is significantly further but without (indistinct) it works.

MS WAKELIN: Yes, it was flatter, it was flatter.

MR WAKELIN: But you understand all of that.

MR LINDWALL: Was that line of sight?

MS WAKELIN: Yes.

MR LINDWALL: My mother has exactly the same issues. She doesn't - I haven't taught her to use a mobile phone yet, although she's got one but she never uses it, doesn't charge it. Anyway. But there is one spot on her farm which is about a 10-minute walk where you can get some mobile phone coverage. It's at the very fringes.

MS WAKELIN: You understand our problem.

MR LINDWALL: I do know the problem, yes.

MS WAKELIN: And ADSL was never an option for us.

MR LINDWALL: Because you're too far away.

MS WAKELIN: That's right, yes.

MR WAKELIN: Can I ask a question in terms of the towers themselves?

MR LINDWALL: Please.

MR WAKELIN: I used to listen to the stories about the wattage or the average of a tower, the capacity to push that signal out. What is the limitation? Because I sometimes had an impression it was dollars, that you only deal to that capacity what you think your market is. How strong can those towers be?

MR LINDWALL: Some people say that some of the towers have been over-engineered, are gold-plated and obviously the taller the tower the wider the range. Also, the lower the frequency, the larger the range. But high frequency or very low frequency in levels - very high range and they're not so affected by terrain, but the quality is less. So you're trading off one against the other. When you move to 5G - because we've been talking about 4G - 5G is very, very high frequency but quite very small cells. That has a great advantage that you can pump lots of data through that.

MR WAKELIN: It is a national dilemma for the 90,000. But, of course, there's the hundreds of thousands who deal with the 90,000. Therefore, there is a common purpose so that we can communicate a lot better and for a whole lot of reasons that you will know.

MR LINDWALL: There's a part of the spectrum that could be used for much wider space towers for mobile phones.

MR WAKELIN: Which the Commonwealth sells at significant profit.

MR LINDWALL: I guess so, yes. You'd imagine, other things being equal, in the cities small little cells, very high frequency, in the regional areas lower frequencies, broader areas.

MR WAKELIN: Therefore, if a solution is available technically or financially or by any other means, the nation would have a benefit. That's my bottom line.

MR LINDWALL: Thank you.

MR WAKELIN: I'm speaking too much because I can't hear, so it's not fair to anyone else.

MR LINDWALL: Any final points you'd like to make?

MS WAKELIN: No, I think we've covered it in the - I think availability is our big - you mentioned your three of the availability, affordability and meeting the disadvantaged groups. Well, availability is ours mainly. We're used to paying more out here for most things, so we expect to - - -

MR WAKELIN: But we don't necessarily like it.

MS WAKELIN: No, we don't.

MR LINDWALL: People in Sydney complain about house prices.

MS WAKELIN: True. We don't have that problem.

MR LINDWALL: No, fortunately. Take care.

MR WAKELIN: Thank you, Commissioner.

MS WAKELIN: Thank you.

MR LINDWALL: Now, there's an opportunity if anyone else wants to say - did you want to come up, sir? If you wish, yes. Please state your name and organisation or if you have one and then whatever you'd like to say, as long as it's roughly within the terms of reference.

MR HEWITSON: George Hewitson, I'm the head of campus of School of the Air based here at Port Augusta. I really came along to have a listen because communicating is our business and we have many - our clients, our families, come from about 80 per cent of South Australia, but only 40 students. So they're far apart but absolutely rely totally on things working; and they don't always work. For example, Activ8me went down two days ago, 10 of our families were out, didn't have school. The only way they could contact us was that I call landline. If that wasn't there, they're absolutely isolated. I'm only speaking from an educational point of view. School doesn't happen. But if they were sick and they want to get hold of the flying doctor, that's another issue as well.

But, yes, we have a bit of a hotchpotch of all over the place where it happens, but the field changes very quickly. It used to be basically the owners of the stations and their kids. They've all grown up and they're often now owned by one or two people and people looking after it. Families coming in and going out, coming in, going out. So lots of pastoral leases but at the moment we've got about 35 with children going from reception to year 7 with us.

This year we had seven new families come in who don't necessarily have the connectivity. So it's a whole game going all the time. Very expensive to do, but from their end it's school. It's what we guarantee every child in Australia to have a school. It's something that's fluid and we just - we can't have any erosion of that current facilities. And they've changed a long time in the last - my kids are in their 30s but they were School of the Air students, just posted out, posted back, lots of stickers and maybe a phone call once a week or so. But now it's all WebEx, it's online. I've just come back from two lessons with kids all over, from Pipalyatjara out to Burra area and whatever.

But when it fails, their education is very much limited. That's basically all I have to say. Not that I've got any solutions, but there's another mob out there - I suppose you heard this morning from someone from ICPA - I can't remember her name - Ms Gibson - we're in the same boat. It's a whole - you talked about Telstra having 99 per cent of the people but only 30 per cent of the land. Well, we're out there in that 70 per cent and there's a few of them, but it's all they've got, I suppose.

In town here you don't want to go to this school, you can go to that school, or whatever, but that's it. We think we provide a good service. But when it goes down it's so frustrating, I suppose.

MR LINDWALL: As you say, George, the original way was through telephone and before that HF radio, I think, which would have been even more challenging still.

MR HEWITSON: Yes.

MR LINDWALL: One person from the Isolated Children's Parents' Association told me that her daughter was taught the violin over the phone, which I found most remarkable, actually. I don't know how you can teach the violin over the phone.

MR HEWITSON: We were at Indulkana at the time and my son got a half-hour lesson a week and it took about 29 minutes to tune it up because it was so hot out there. That's the issues. Other issues I'm fine with as well. But yes, he learned the violin at Indulkana on the phone.

MR LINDWALL: Could you tell us a bit about the Sky Muster service when it's working - we'll talk about the not working part. But how have you found when it's actually working?

MR HEWITSON: When everything is working it's great. It's a great service. I think the kids get a really good education. We don't have to fight all the other things that you do in a more urban setting. They also spend a lot of time coming in as well four times a time at their cost so their children can be part of a big family. But when it's working it's great.

MR LINDWALL: And they manage with the - there's obviously a little bit of latency when you're operating on the satellite service?

MR HEWITSON: Yes.

MR LINDWALL: But they obviously manage that fairly well?

MR HEWITSON: What we find is that out of our 39 or 40 students we've got now, not all of them are fine any day. So if someone's having issues, someone's having issues. Even some weather things occur quickly or - and, as you know, up at Cooper Creek there's been - we've got about four families around Innamincka, that area, and they've had lots of issues, just washaways and that sort of thing. So they're down for a long time. And I'm sure you guys have, but it's just a bullet point that it's not a business, I'm not looking after a business, I'm not looking after myself.

I listened before. I spent 13 years living in remote Aboriginal communities in South Australia and Northern Territory. So I know the issues and the public phones and all the things that are very frustrating living there or very more isolating. When you get that you'll also find it difficult to recruit people to come and work there.

MR LINDWALL: Exactly.

MR HEWITSON: Can I work at a Rose Park Primary School or can I work at Pipalyatjara? Some people like Pipalyatjara, but I'm saying that's still an issue when you're recruiting.

MR LINDWALL: Obviously the Sky Muster has been going off for a variety of reasons. Have you in your role spoken to the NBN about the types of reasons and whether some of them are temporary or whether some of them are more long lasting and the overall reliability you might expect is going to increase over time?

MR HEWITSON: We have, but we do get lots of different answers and we'll get on too soon and - but a day is a day or two days is two days. In the meantime, those that aren't affected the lessons go on. So it's just like wagging school for a week.

MR LINDWALL: And it's unpredictable.

MR HEWITSON: Absolutely. We don't even know it's happened till it's happened. Nothing to do with you guys, but we have to do a WebEx thing which runs out of Singapore; that can go down too. So we can't do too much at all.

MR LINDWALL: But when you said Activ8me, I think is the name of that company, that - so you're saying that only the satellites - this was a retailer problem, not an NBN problem.

MR HEWITSON: That one was. All those that had their email address with ...activ8 ... gone. That was Tuesday of this week.

MR LINDWALL: How did that happen, do you know?

MR HEWITSON: No. They didn't know. They just got - well, no one can tell them at the time because they're out. One was able to ring them and was told it could be a day and they were back on the next morning. But that was all could be. So we had all these other contingencies through landlines and that, which aren't as good if you're not prepared for it. Then they were back on. But that happens quite a lot. It sort of throws us out a fair bit.

MR LINDWALL: The interaction part of it, of course, you can't do much about when it goes down like that. But do the students download some of the material so that if it does go down they still have downloaded it and therefore they can still use it?

MR HEWITSON: They have some, that's possible. But during the lesson there's a minimum of - their little pipes or whatever, it's very thin coming in and out. So we're restricted somewhat there. They don't have a teacher. So you know, we could say 12 years at home reading the books but there's a difference.

MR LINDWALL: I know.

MR HEWITSON: So they don't have the teacher. So they sort of wander off into - the older - I mean, I have the year 7s. They'd look after themselves if that happened. But when you have little 5-year-olds their first time at school, they can't read and, all of a sudden, they're on this WebEx thing coming in at them, it's fairly - - -

MR LINDWALL: I can understand. Any other final points you've got?

MR HEWITSON: I assume the lady before put the point, but I thought yes, we do represent a huge area of the state with a very few number of people. Everybody has an entitlement and sometimes they feel that their entitlement is not as good as some other people.

MR LINDWALL: Thanks very much.

MR HEWITSON: No worries.

MR LINDWALL: Does anyone else want to make a presentation? No others? Okay. I think the last thing I have to do is to conclude today and adjourn now for next week in Perth; next Tuesday, if I'm not mistaken. Thank you, everyone, for coming.

MATTER ADJOURNED AT 12.39 PM UNTIL TUESDAY, 14 FEBRUARY 2017 at 8.30 AM