



COMMONWEALTH OF AUSTRALIA

Official Committee Hansard

SENATE

SELECT COMMITTEE ON THE NATIONAL BROADBAND
NETWORK

Reference: Implications of the proposed National Broadband Network

WEDNESDAY, 14 APRIL 2010

MELBOURNE

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**SENATE SELECT COMMITTEE ON
THE NATIONAL BROADBAND NETWORK**

Wednesday, 14 April 2010

Members: Senator Ian Macdonald (*Chair*), Senator Nash (*Deputy Chair*), Senators Birmingham, Fisher, Ludlam, Lundy and Sterle

Senators in attendance: Senators Fisher, Lundy and Ian Macdonald

Participating members: Senators Abetz, Adams, Back, Barnett, Bernardi, Bilyk, Mark Bishop, Boswell, Boyce, Brandis, Carol Brown, Bushby, Cameron, Cash, Colbeck, Jacinta Collins, Coonan, Cormann, Crossin, Eggleston, Farrell, Feeney, Ferguson, Fielding, Fierravanti-Wells, Fifield, Forshaw, Furner, Heffernan, Humphries, Hurley, Hutchins, Johnston, Joyce, Kroger, McEwen, McGauran, McLucas, Marshall, Mason, Minchin, Moore, O'Brien, Parry, Payne, Polley, Pratt, Ronaldson, Ryan, Scullion, Stephens, Troeth, Trood, Williams, Wortley and Xenophon

Terms of reference for the inquiry:

1. To inquire into and report on:
 - a. the Government's decision to establish a company to build and operate a National Broadband Network (NBN) to:
 - i. connect 90 per cent of all Australian homes, schools and workplaces with optical fibre to the premise (FTTP) to enable broadband services with speeds of 100 megabits per second;
 - ii. connect all other premises in Australia with next generation wireless and satellite technologies to deliver broadband speeds of 12 megabits per second or more;
 - iii. directly support up to 25,000 local jobs every year, on average, over the eight year life of the project.
 - b. the implications of the NBN for consumers and taxpayers in terms of:
 - i. service availability, choice and costs,
 - ii. competition in telecommunications and broadband services, and
 - iii. likely consequences for national productivity, investment, economic growth, cost of living and social capital.
2. The committee's investigation should include, but not be limited to:
 - a. any economic and cost/benefit analysis underpinning the NBN;
 - b. the ownership, governance and operating arrangements of the NBN company and any NBN related entities;
 - c. any use of bonds to fund the NBN;
 - d. any regulations or legislation pertaining to the NBN;
 - e. the availability, price, level of innovation and service characteristics of broadband products presently available, the extent to which those services are delivered by established and emerging providers, and the prospects for future improvements in broadband infrastructure and services (including through private investment);
 - f. the effects of the NBN on the availability, price, choice, level of innovation and service characteristics of broadband products in metropolitan, outer-metropolitan, semi-rural and rural and regional areas and towns;
 - g. the extent of demand for currently available broadband services, the factors influencing consumer choice for broadband products and the effect on demand if the Government's FTTP proposal proceeds;
 - h. any technical, economic, commercial, regulatory, social or other barriers that may impede attaining the Government's stated goal for broadband availability and performance in the specified timeframe;
 - i. the appropriate public policy goals for communications in Australia and the nature of any necessary regulatory settings to continue to develop competitive market conditions, improved services, lower prices and innovation;
 - j. the role of government and its relationship with the private sector and existing private investment in the telecommunications sector;
 - k. the effect of the NBN on the delivery of Universal Service Obligations services;

- l. whether, and if so to what extent, the former Government's OPEL initiative would have assisted making higher speeds and more affordable broadband services available.
3. In carrying out this inquiry, the committee will:
 - a. expressly seek the input of the telecommunications industry, industry analysts, consumer advocates, broadband users and service providers;
 - b. request formal submissions that directly respond to the terms of reference from the Australian Competition and Consumer Commission, the Productivity Commission, Infrastructure Australia, the Department of the Treasury, the Department of Finance and Deregulation, and the Department of Infrastructure, Transport, Regional Development and Local Government;
 - c. invite contributions from organisations and individuals with expertise in:
 - i. public policy formulation and evaluation,
 - ii. technical considerations including network architecture, interconnection and emerging technology,
 - iii. regulatory framework, open access, competition and pricing practice,
 - iv. private sector telecommunications retail and wholesale business including business case analysis and price and demand sensitivities,
 - v. contemporary broadband investment, law and finance,
 - vi. network operation, technical options and functionality of the 'last mile' link to premises, and
 - vii. relevant and comparative international experiences and insights applicable to the Australian context;
 - d. advertise for submissions from members of the public and to the fullest extent possible, conduct hearings and receive evidence in a manner that is open and transparent to the public; and
 - e. recognise the Government's NBN proposal represents a significant public sector intervention into an increasingly important area of private sector activity and that the market is seeking openness, certainty and transparency in the public policy deliberations.

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Committee met at 11.00 am

GOW, Mr Stephen, Director, Planning and Environmental Services, Armidale Dumaresq Council

HALES, Mr Brian Alexander, Group Manager, Economic Development, City of Onkaparinga

LYNCH, Mr David Wayne, Manager, Economic Development and Strategic Projects, Townsville City Council

STELLER, Mr David John, Director, Engineering and Works, Armidale Dumaresq Council

WHITTAKER, Mr Bryan Philip, Director, Engineering and Works, and Assistant General Manager, Kiama Municipal Council

Evidence was taken via teleconference—

CHAIR (Senator Ian Macdonald)—I declare open this hearing of the Senate Select Committee on the National Broadband Network. As people know, these are public proceedings. The committee may agree to a request to have evidence heard in camera, if that is sought. All witnesses giving evidence are reminded that they are protected by parliamentary privilege. I think those giving evidence have all given evidence before and so are fairly familiar with it.

I welcome everyone here, particularly our first witnesses, all of whom are appearing by teleconference. I thank everyone for making themselves available today to talk to the committee. I appreciate that the National Broadband Network is in a state of flux or progress or part completion, depending on which terminology you might use, but we are very interested to get an update on where it is all at. I appreciate the involvement of the representatives of the councils.

Gentlemen, you have appeared at our request because you are part of what I might call an initial pilot on the rollout. Do any of you have some opening comments on your involvement and how it is going? Then I will ask you to subject yourself to some questions from the members of the committee.

Senator FISHER—Chair, can I ask a silly question—which you will get used to from me. I presume the representatives appearing by teleconference are all in different places. Or are you all in one place physically?

Mr Gow—We are all in different offices, as I understand it.

Senator FISHER—Okay. Thank you.

CHAIR—Would anyone like to start with giving us a quick update on where you are and why you are at where you are?

Mr Gow—I will go first because I am first on the list. We had a briefing up here in Armidale from NBN Co. on 1 April. That was facilitated by our economic development manager and was quite a detailed briefing which went through the project. It will be rolled out mainly in north-west Armidale, including in the University of New England, which is a major part of our local economy and community. As a result of that initial meeting we have set up a small working party within council to liaise with NBN Co. In my role part of my responsibility has been to liaise with them about some of the town planning requirements as they apply in New South Wales to this project. At this stage we do not think they are going to be particularly onerous or difficult, given what they have told us about the project as it will unravel here. My colleague David Steller will talk for a second about some of the civil engineering issues that he will be interfacing with NBN Co. on.

Mr Steller—At the initial briefing we raised the issue of up to 10 teams working within the Armidale area at any one time on various parts of the project, which will be fairly resource hungry on my staff in having to locate underground surfaces for them and other issues. So I think that we need to—

CHAIR—Mr Steller, can I just stop you there. Hansard is having some trouble picking up what you are saying. Are you on a conference phone or something?

Mr Steller—Yes, we are. I have come a bit closer to the microphone.

CHAIR—That is better. Keep going, if you would. Perhaps you could just repeat the last little bit that you said.

Mr Steller—I think I started off by saying that it was indicated that there would be up to 10 work teams helping with the project, the subcontractors. We were a little bit concerned about having sufficient resources to service that number of teams working in our local area to locate services and other utility infrastructure. We regularly get asked to locate our infrastructure for other telecommunication companies as well as gas companies and Country Energy, who are the power authority up here. So that is something that we need to set up some protocols about so that we get enough notice to provide that information. The other issues are helping them with their design plans, and traffic management and traffic control is something that we want to make sure the subcontractors are well aware of, and we want to do sufficient planning in respect of undertaking the works.

CHAIR—Thank you very much for that. From what you have said, we will have myriad questions, but I might leave the questions until we have heard a brief opening from all of the participants. Who would like to be next?

Mr Whittaker—Similarly to the previous speaker, we had a very detailed and technical briefing from NBN, on 22 March here at council. Kiama has a population of around 20,000, with a number of small coastal towns and villages. The project proposed by NBN for Kiama is for the villages of Minnamurra and Kiama Downs in the north of our municipality. Similarly, we have had an opportunity to talk to the contractors who are doing the design work. Those companies who have been contracted to do design for both underground and overhead have been very informative. We have raised a number of the same issues as the previous speaker in relation to the coordination of the work with council teams and engineering supervisors and so on.

I guess one of council's concerns—and I understand the reason for this, but we believe it is somewhat unfortunate—is that there will be no sharing of infrastructure, or there has been no resolution about the sharing of infrastructure, with other service authorities, particularly for underground, so there will be new open trenching, road openings and so forth that will have to be performed by the trial.

On the public consultation process, I believe NBN have been in touch with various members of council about public consultation, which I believe should be taking off fairly shortly—and needs to, given the planned construction period between August and December.

The other issue which we raised with NBN in that initial meeting was, wherever possible, the use of state land for the infrastructure. In the Minnamurra case or the North Kiama case, there is a rail corridor which runs right through the spine of that area which could serve as the major distributor line.

That is just briefly an overview of where we are at at the moment.

CHAIR—Thank you very much. As I say, we would love to come back there. Let us hear from David now.

Mr Lynch—Thank you. Townsville is a city of about 180,000. It has significant growth. It is the largest tropical city in Australia. The area that has been picked by NBN Co. is the area of Mundingburra and Aitkenvale, and about 3,100 households are being connected there. I understand the reason it was selected is that it is fundamentally a typical suburban area and that is one of the areas they wish to test.

We have had some involvement with NBN Co. in recent times. We made approaches to them early on in the piece to ascertain what could be done to encourage NBN Co. to consider Townsville and what we could do to prepare for that opportunity. There had been limited liaison back with regard to that, as I suspect things were all a bit loose with regard to NBN Co.

We were reasonably surprised, but pleased, to hear the announcement that Mundingburra and Aitkenvale were part of the early developments with regard to the NBN Co. arrangements. Subsequent to that, a number of meetings have occurred within the council here with people right the way down from the CEO of NBN Co., Michael Quigley, and our own CEO and councillors through to people more on the technical side of things. We have subsequently established a number of points of contact as far as council is concerned—a working group within council, if you like. It is being coordinated by the economic development and strategic projects unit of council, but it involves our planners, our construction people—who also are the custodians of the road reserves and so on that they need to have access to—as well as some of our environmental and heritage people and our community services areas with regard to communications and so on.

At this point in time, we are going through the details in relation to the planning aspects. Some recent discussions have been had with the subconsultants for that particular purpose. We are also having some discussions in relation to the community consultation process. We understand there are going to be a number of public days and displays and so on, focused around 8 May.

I guess that sums up our position in relation to this. Our experience to date has been fairly good. There are some issues obviously, with a project of this scale, that need to be overcome. Notwithstanding that, we are finding that NBN Co. is reasonably open with regard to any questions and are probably asking us as many questions as we are asking them. To date, the experience has been reasonably good.

CHAIR—Thank you for that.

Mr Hales—The City of Onkaparinga has about 160,000 people. We have been very active in economic development for a number of reasons. It is part of the amalgamation that happened about 12 years ago. We lost the Mitsubishi engine plant. We lost the Mobil refinery and the like, which opens up a whole new realm of possibilities and has the whole region thinking about its future. The plan has been settled. We have got an economic development board and we have actually placed broadband infrastructure near the top of the list of urgent priorities. The reason is that we believe the trade in ideas and services will probably be more important for us in the future than the trade in goods given our relatively poor transport infrastructure. So we were thrilled with the announcement that Willunga was one of the first cabs off the rank for NBN Co. Willunga itself is part of the McLaren Vale wine area. It is becoming famous for hosting one of the stages of the Tour Down Under. It has the Willunga Farmers Market, which is one of the world renowned farmers markets opened by David Suzuki. As I said, it sits in the middle of the McLaren Vale area.

We met with the executives of NBN Co. on 10 March—that was our CEO Jeff Tate, our general manager for planning, Terry Sutcliffe, and me. From that technical briefing, we set up a working team of relevant people through the council officers. I am the central point of contact for that. I am the gatekeeper, if you like. As the other speakers have said, we have dealt with the planning issues. I believe Willunga is fairly unique compared with others in the sense that there are quite a few heritage listed buildings. So that offers a challenge for the designers. We have met with the two design consultants and we have also provided advice on community consultation and some of the pitfalls and opportunities there. We understand that the community consultation from NBN Co. will commence in early May, probably on the 8th. We are keen to get a briefing for councillors and staff directly from NBN Co. as part of that.

We are keen to make sure that we make the path as easy as possible for NBN Co. to roll out the cabling. Also, we are pretty active at the moment in building demand for broadband services through programs that we have run through our Business Enterprise Centre, Exporters Club and the like. We have got 40,000 new residents coming in the next 15 to 20 years and we want to make sure that the developers and the Land Management Corporation, which is our state government landholder for urban development, are right on the ball with specifying the infrastructure, the pits and the pipes that are required for NBN Co. to run out the fibre to the premises.

CHAIR—Thank you very much Brian. Can I just ask all of you whether any of you knew that you had been selected before the public announcement was made?

Mr Hales—No, we did not.

Mr Lynch—No, we did not.

Mr Gow—Same for Armidale Dumaresq; we were not aware either.

CHAIR—I suspect we might just have lost someone.

Mr Whittaker—I have just come back online.

CHAIR—Did you hear the question, Mr Whittaker?

Mr Whittaker—No, not at all.

CHAIR—Did you know that you were being selected before the public announcement was made?

Mr Whittaker—No, we did not.

CHAIR—These teleconferences from all over Australia are always challenges, but I might start by asking David from Townsville some questions. I will then ask either of my colleagues if they want to follow up on those. I will then go to Senator Lundy to ask some questions, perhaps of the New South Wales councils, with follow up from Senator Fisher and me. Then Senator Fisher will obviously want to lead the questioning of Onkaparinga council. That is how we might do it if everyone is fine with that.

David, you have all said that there have been planning issues. What does the council do with planning issues for simply putting fibre along the street and into someone's house? How does that involve planning issues for the council?

Mr Lynch—Firstly, there are issues associated with access to land that, in many cases, they are utilising for that particular purpose as councils. It is road reserve, and from that point of view there are obviously matters that need to be resolved with council in getting access to those things and ensuring that the proper considerations are being given to that. For the development approvals process, there is not a significant amount that needs to be done. This is not something of a nature that requires an approval as such—it is not a permanent construction or whatever—but there are construction approvals that need to be done and there obviously need to be approvals as far as the council is concerned to access land of which we are the custodians and also to play with infrastructure on many occasions, which may well be out as well. So most of the planning aspects are associated with that.

In addition, our planners are obviously acutely aware of what is occurring around the place. It is where we hold much of our GIS information, which is pretty important as far as this particular group is concerned in understanding what is currently there, any limitations that might well be there, particularly if they are going underground, in respect of all other infrastructure that they need to be aware of so that they can access it. That tends to be the focus from the planning point of view.

CHAIR—Okay. Thanks for that. You said you expect to have around 3,100 homes connected; is that correct?

Mr Lynch—That is correct.

CHAIR—And in the Mundingburra-Aitkenvale area most of the electricity and telephone services are overhead; is that correct?

Mr Lynch—That is correct, yes.

CHAIR—Will the NBN connections be overhead or underground? Do you have a say in that, or have you been told anything? What is the position with that?

Mr Lynch—We have certainly discussed those particular issues and have given our preference in regards to it. But NBN Co. have made it pretty clear that their intentions are that where there is access already available, whether it be above ground or below ground, they will utilise that wherever possible. Clearly, below ground is a preference, particularly given the nature of life in North Queensland—in particular, I am talking about potential climatic issues, cyclones and so on, that can interrupt these sorts of things. But NBN Co. have made it pretty clear that they will be utilising and accessing the existing infrastructure wherever possible, and obviously where that infrastructure does not exist they will be creating their own.

CHAIR—Would you have the power, should you choose—and I am not suggesting you would—to insist that they go underground and perhaps the power then to say, either from council contribution or from electricity and other agencies, ‘While we’re doing this we might as well do it underground and put everything else underground’?

Mr Lynch—I am not entirely familiar with the enabling legislation which has been proposed or has been developed in regards to NBN Co., but I assume it is going to be very similar to other utility providers in relation to that. Certainly, we do not have the capacity in brownfield sites, for example, with Telstra and power suppliers Ergon and so on, to stipulate that they must go underground. Of course, much of our infrastructure is above ground. However, as far as the greenfield sites are concerned, as far as the planning goes in relation to the infrastructure that is put in by developers—in many cases, the infrastructure we talk about is put in by developers themselves—we do require that to be the case. We are currently digging up our main street in the CBD, and one of the things that we are doing as part of that process is considering access in relation to fast broadband and putting all this stuff underground anyway. So we do have the capacity in relation to the approvals processes for new developments to stipulate that infrastructure is underground.

CHAIR—Do you know who the contractors are? Have they been introduced to you or have they been selected?

Mr Lynch—We have been introduced to some of the planning contractors, but, certainly on the construction side of things, to be perfectly frank, I would be surprised if it has advanced to the point that construction contractors have chosen. Having said that, I have no doubt, given the complexities of what we are talking about and the scale of the exercise that we are part of, that those construction people will need to get involved very early in the project. They are probably considering that. We have not been made aware of who may be considered or who may be appointed in relation to the construction aspects. It would be very encouraging if a local perspective is taken with regard to that. We will no doubt liaise with them on that, but those discussions have not been had.

CHAIR—I have two more quick questions. Is there any talk about the council being paid or do you have an ability under your normal regulations to charge for the planning and other work in which the council will be involved as a result of the connections?

Mr Lynch—The short answer is: yes, we do. We can cost recover in relation to that. There are no issues with that. In fact, only yesterday we were liaising and negotiating on issues associated with accessing our GIS information. That would be the fee-for-service approach, as it is with any other organisation. Where there are significant costs incurred from our point of view, we do have the capacity to recover costs and, from that perspective, we will be treating NBN Co. in the same way as any other utility provider.

CHAIR—Do not answer this if you are at all embarrassed by it, but, if you had been asked beforehand, would you have selected these two suburbs or would you have, for example, tried to get it happen in the CBD area where you are already doing a massive infrastructure project and undergrounding things as part of the Moree development, or haven't you considered that? I hear you are delighted to have it and rightly so. Clearly there was no consultation or you would have known.

Mr Lynch—There was no consultation in relation to that. I might add that our particular criteria with regard to where we might want things to occur would be substantially different to what NBN Co. needs are at this point in time with regard to these particular pilots. Having said that, we have knowledge precincts with tertiary education facilities, tertiary hospitals and so on that would greatly benefit. I might add that they are in proximity to the area we are talking about, but it is not connected with this process. I see that Onkaparinga is having a rollout of those particular facilities, so no doubt NBN Co. is testing that particular area. We are starting to liaise with NBN Co. with regard to Flinders Street. Our engineers and planners from the Flinders Street redevelopment are talking to them about their requirements and standards in relation to the fit-out. One of the things that I will be posing to NBN Co. at some time in the future is that, once they have finished with Aitkenvale and Mundingburra, if they have a bit of excess stuff there, to by all means come down to the main street and roll some out through there.

CHAIR—Good luck. Bearing in mind the time, I will stop there.

Senator LUNDY—I have a couple of general questions. I want to confirm that you have all had briefings. Could you also confirm whether the mayor or local council representatives from each of your councils were contacted by NBN Co. on the day that the first release sites were announced on 3 March.

Mr Lynch—I assume it is a question to all of us.

Senator LUNDY—Yes.

Mr Lynch—I might as well kick off first. My association with NBN Co. and council associations has been at the highest levels and also at the officer level. We have had a briefing with a number of NBN Co. senior executives, from Michael Quigley down, and in attendance at that particular meeting was our mayor, our deputy mayor, our CEO, me and our director of planning and development. Subsequent to that we established, as was mentioned previously, our

working groups, which have been working at a technical level with the officers at NBN Co., in many cases through my office but in some cases they got to the point where liaison was direct.

There has been no briefing to our broader councillors at this point in time. Notwithstanding that, in another capacity that I have as a member of the regional reference group for the Local Government Association of Queensland, NBN Co. has briefed that particular group and one of the things that we will be doing as part of this particular process is using the Local Government Association of Queensland as a conduit to other local governments within Queensland to discuss the experience, both good and bad, and assist in preparing them for what is obviously going to be a fairly monumental task when we get into the full swing of things and they are rolling out some 5, 000 households a day.

So that has been the level of consultation to this point in time. There has been no request by us that a broader brief be provided to council or to councillors. There has been no request from those councillors either, but I suspect it will be picked up as part of the broader community consultation process.

Mr Whittaker—Things that have been stated by Townsville in relation to that question are very similar, if not exactly the same, for Kiama council, apart from any association with our local government association at present.

Mr Hales—The first contact was made with our mayor. Our mayor does work full time and is fairly busy so could not make the meeting—

Senator FISHER—When was that, Mr Hales? When was the meeting attempted?

Mr Hales—On 10 March.

Senator FISHER—A week after the announcement—

Mr Hales—A week and one day, that is right.

Senator FISHER—So when did the council first find out that Willunga was chosen?

Mr Hales—On the Tuesday, or whenever the announcement was made—

Senator FISHER—On the day of the announcement, thank you. How did you find out? Did someone phone you or did the press let you know?

Mr Hales—The press let us know. The meeting, as I said before, was with the CEO, me, and our general manager of planning, on the 10th. We got a very detailed briefing and the invitation was then issued to NBN Co. to brief our councillors and staff about the project. That invitation remains open, I understand, and we are aiming for them to attend a council meeting on 18 May to give that briefing.

Mr Gow—Our situation is a little bit different. As far as we know the mayor and the general manager were not contacted. We had a discussion with the proponents on 1 April.

Senator LUNDY—Having done a little bit of work in the past on some of the broadband blockers in the existing network, I wonder whether each of you could tell me, if you know, to what extent all the different types of pair gain systems are used in your communities and what sort of frustration is experienced by the communities and how that relates to your obvious excitement about being part of these first sites for the NBN rollout.

Mr Hales—Throughout council area we have got a range of broadband black spots—and I am talking ADSL2. We have communities establishing down in Aldinga and Sellicks Beach further south. People who go there believe they are going to get access to ADSL2, and when they have built their houses and occupied them, they cannot, for whatever reason. That has been extremely frustrating for some people particularly those who want to do business with Sydney directly from their homes. We are getting anecdotal evidence about that. Onkaparinga has nearly the highest percentage of black spots throughout its council area. There is a state government program being rolled out at the moment to cover those, but we are talking up to 12 megabits a second, not the 100 megabits a second.

Senator LUNDY—Is that one of the reasons why you so warmly welcomed the identification of this particular part of your jurisdiction for the rollout?

Mr Hales—Yes, that was one reason. The other was more strategic in the sense that we saw it as our source of competitive advantage, given that the shape of our council area coming to a point—there are two escarpments. Geographically we cannot expand in width and we come to a narrow point, so the ability to generate economies through transport infrastructure—roads and rail to some degree—just is not there.

Senator FISHER—Mr Hales, in saying that it will give Willunga a competitive advantage, does that mean that it is only good so long as no-one else gets the same?

Mr Hales—Not really. In the context of the rollout, it is an eight-year rollout. We did put in a submission to NBN Co. for our Southern Adelaide Economic Development Board. We would like to be first so that we get that leg-up early. It is not so much just the broadband being provided; it is making sure that our businesses, our residents and our institutions make good use of that broadband service

Senator FISHER—Willunga is a pilot which, supposedly, means the first of many and the first of everybody else. So if the benefit of it to Willunga is simply being first, then I would have thought in a public policy sense that we would be wanting more in terms of advantages to be reaped from a trial rollout. Otherwise they are all lost as soon as everyone catches up, which they would want to do.

Mr Hales—If the Willunga exercise is successful, we would hope—and nothing has been guaranteed at this stage—that the rollout will continue from that point. We will be working on that. It is not so much that you have broadband or you do not have broadband; it is the use you put that broadband service to. For example, businesses using broadband early are always going to be on the uptake of new applications from broadband. So the competitive advantage comes in how you use it, not so much that it is there. You have to have it there, but you have to—

Senator FISHER—Would you have chosen Willunga over and above all the other areas in your local council area?

Mr Hales—No, probably McLaren Vale or an area where there is a much greater concentration of businesses—the wine region, food businesses—but Willunga is close enough. If Willunga becomes the first to point and it extends from there, it will be a matter of time.

Senator FISHER—But you would have chosen somewhere else?

Mr Hales—We were not aware that there were going to be pilots established. We would have just said, ‘Start in our council area.’ I guess starting anywhere in our council area is an advantage, as we see it.

Senator FISHER—Of course.

Senator LUNDY—I would like to go back to the point about the black spots. I am pleased to see that Senator Fisher is such a strong supporter of Willunga receiving the broadband rollout in the first instance, although it is a little bit hard to tell with her line of questioning.

Senator FISHER—It is a little bit hard to tell what is going to be delivered, Senator Lundy.

Senator LUNDY—Do you support it or not?

Senator FISHER—We want to see what is being delivered. I am not sure that everyone else wants the same until we know what is being delivered.

CHAIR—Now, no politics in this committee! We are bipartisan.

Senator FISHER—Yes, thank you, Chair.

Senator LUNDY—Having been interrupted twice now, I think it is fair for me to make the comment that I would have expected there would be equal enthusiasm from the South Australian senator for this community, which has the highest proportion of ADSL2+ black spots, to be a recipient of one of the first rollout sites of the NBN. In relation to other councils, I am keen to know the extent of your knowledge in relation to the type of broadband black spots which currently exist in those communities and how that relates to the council’s concerns about the economic and competitive advantage which might occur from the rollout, as described by Mr Hales from the City of Onkaparinga.

Mr Lynch—While it is not as bad as the City of Onkaparinga, it is not dissimilar. There are obviously areas where we have significant limitations in relation to the general public’s access. Our experience is not just with Onkaparinga; we have areas where access to broadband is limited. The main issue there is as far as the general public is concerned. Notwithstanding that, one of the major issues that we have, particularly from a strategic and competitive advantage point of view, is that we have a very large proportion of international organisations based here in Townsville. They are organisations such as James Cook University, the Australian Institute of Marine Science, the Great Barrier Reef Marine Park Authority, different CSIRO divisions et cetera, all of which require significant bandwidth capacity to be able to do their services—not

just on a national but also an international basis. Further, we have the Defence Force and a tertiary hospital here, both of which were constrained in their capacity to realise their potential and also to reach their markets with regard to communication.

One of the major advantages that we see in what is being proposed relates to those organisations' capacity. That is not an issue associated with the short duration we may well get for a competitive advantage on a national basis for being the first cab off the rank. It goes broader, to a capacity to go into the broader tropics. From our point of view, there is a significant proportion of the global population within that particular catchment, even as far as our hospital is concerned, who have been influenced by organisations such as AIMS and James Cook University. We are probably more excited at the capacity for those institutes to expand their influence and capacity than we are at the capacity of the average household to download their music a bit quicker or to get access to broadband. But we probably do not have the same kind of issues that the City of Onkaparinga has.

Senator LUNDY—Thank you.

Mr Whittaker—I would like to say that, whilst Kiama has some broadband black spots in our rural areas, I do not think we are particularly disadvantaged compared to other areas. I think part of this process, as explained to us by NBN, is that they have tried to select a variety of types of situations. At Kiama they have chosen a small residential area. Obviously we would have liked to see a rollout closer to our city centre, but as we understand it the objective of the trial is to try to select some areas which provide different problems and the opportunity to look at different solutions for them. That is why we have some spots more in our rural areas that probably will not be improved by this trial. We understand the approach of NBN and are still delighted to be included in the trial. One of the disadvantages of the trial which I alluded to in my opening was the lack of opportunity, at this stage, at least, to share service infrastructure with other authorities—in our case, Integral Energy. Apparently those agreements have not been put in place yet. I do not know if they will be in the future. We believe that they should be, because with the provision of new trenching and new infrastructure throughout those residential areas we are obviously going to have restoration of road damage issues which could be avoided through the shared-service arrangement.

Senator LUNDY—Thank you.

Mr Steller—My comments will generally be much the same. Infrastructure is lacking in this area. We are especially lacking in ADSL2 communication infrastructure. Telstra is using pair gain systems in Armidale to try to meet the demand. RIM technology has been introduced, especially to the university, which is one of the demand areas that we have. The level of service you get depends on how close to the RIM you are. It is a bit hit and miss throughout the Armidale area. Even the wireless service lacks bandwidth. You get a lack of service sometimes. It depends on the number of users. You often notice at around 3:30 in the afternoon, as the kids come home from school, that your wireless system goes down the tubes.

Senator LUNDY—In relation to Armidale and the RIM technology being used there and for the benefit of people reading the transcript, RIM technology has the effect of limiting the availability of the number of ADSL and ADSL2+ services being provided to the area that the RIM services. Do you happen to know when the RIMs that service the UNE in the Armidale area

were installed? There has been a longstanding dispute with Telstra about the use of the RIMs and their broadband-blocking characteristics. I am curious about how recently Telstra have used broadband-blocking infrastructure in their network in your region.

Mr Steller—I believe it has been about five-plus years. It could even be up to eight or nine years since they introduced that technology.

Senator LUNDY—Thank you very much for that. Thank you all for your answers.

Senator FISHER—I will ask my questions of Mr Hales, who no doubt will be ecstatic about that, but could the rest of you also take it as if the questions were to you and provide the committee with answers to those questions on notice? As part of the rollout, has the City of Onkaparinga been required to sign any sort of confidentiality agreements with anybody—for example, with NBN Co. or any government departments?

Mr Hales—No.

Senator FISHER—Thank you. That is my first question for the rest of you very good gentlemen. You will all have local planning laws and requirements. Mr Hales, at this stage has there been any discussion about or do you have any expectations that there might need to be some changes to or circumvention of what would normally be local planning rules to facilitate the rollout? If so, on what basis?

Mr Hales—We have been working with two design companies. There has been no question about bypassing any rules. The advice that the planners have been providing is along the lines that anything that is underground would not require planning approval and anything above the ground would. That includes the overhead cabling if there is overhead cabling and also the above-ground boxes that go with it.

We have heritage issues in the townships. A number of places are listed as heritage properties, and we have advised them that if they locate these boxes in front of heritage properties there will be heritage issues that will be required to be addressed. If they are put in front of properties that are not subject to any listing, then they would not. There has been no question about bypassing or changing any rules.

Senator FISHER—Very good, and—

Mr Gow—Steve Gow from Armidale here. Would you like to hear from New South Wales in this regard?

Senator FISHER—Sure, if you have something specific to add to that end. Thank you.

Mr Gow—The situation in New South Wales, as we understand it, is that it falls within a state environmental planning policy for infrastructure, which the state government here brought down in 2007. One of the critical questions we are still trying to find out with NBN Co. is whether they constitute a public authority. If they do, then they have wide powers to carry out work without the need for development consent. If they do not, then there may well be the need for consent. Like the other speaker, I would say that if there are heritage issues involved we will be

involved in discussing with them the particular impacts on the particular properties. That is a sort of broad view of the situation. We understand that that state policy in New South Wales has been drawn up in consultation with the Australian communications industry code, so if it fits within that we do not expect a lot of problems, but we certainly do not expect any local variations to that legislation to be necessary.

Senator FISHER—Do you think that NBN Co. will be a public authority?

Mr Gow—I simply do not know the answer to that question at the moment. We put that to them and we are trying to establish with them whether they have a basis to be considered as a public authority. If they are, that is fine. If they are not, our legislation here in New South Wales requires us to treat them somewhat differently.

Senator FISHER—Do you expect any problems from NBN Co., or in terms of the rollout, if they are not a public authority?

Mr Gow—Not provided we get that issue resolved quickly and we can then move on to any necessary application documents that need to be considered. We believe we have got time to deal with that, but it would be nice to get an answer on that. Mind you, we have only given that advice following their meeting here on 1 April. We gave them that advice in a fair bit of detail on 8 April, and we are just waiting to get some feedback from them.

Senator FISHER—And if they are a public authority?

Mr Gow—If they are a public authority, then the state policy simply says that development for the purposes of telecommunications facilities, which includes this, may be carried out by a public authority without consent on any land. That is the first statement that is relevant in this particular policy. They have pretty broad powers if they are a public authority.

Senator FISHER—Would your local councils or your ratepayers have any concerns about that?

Mr Gow—I do not think so, provided we have the ability—which we have been doing at the moment—to have a good dialogue with NBN Co. For example, in relation to their central infrastructure hub in Armidale, the location for that, Mr Steller here has been talking to them about a suitable location. Provided that dialogue continues, I do not think we would allow it to get to the point where there was going to be a major concern.

Senator FISHER—Thank you, Mr Gow, that is very helpful, and here is hoping—

Senator LUNDY—Senator Fisher, I think I can assist. Part 7 of the exposure draft, under ‘miscellaneous’, part 67 cites specifically that NBN Co. is not a public authority. It goes on to detail:

NBN Co is taken for the purposes of the laws of the Commonwealth, of a State or of a Territory:

(a) not to have been incorporated or established for a public purpose or for a purpose of the Commonwealth; and

(b) not to be a public authority or an instrumentality or agency of the Crown

I think that answers your question and therefore I presume you would support that element of the exposure draft of the bill.

Senator FISHER—You might follow that up, Mr Gow.

Mr Gow—That is very interesting. I was sort of hoping that NBN Co. would be able to tell us that themselves. They have not to date, but no doubt they are aware or will be made aware of that. In New South Wales that means that there is a de facto requirement for consent, it appears, and we will be talking to them about that. But again I do not anticipate any major problems, given the nature of the rollout they have discussed here, which is using existing infrastructure.

Senator LUNDY—There was a reason the exposure draft was made available: so that these types of questions could be answered by direct reference to that exposure draft.

CHAIR—We have one more question from Senator Fisher. We are grossly over time.

Senator FISHER—My question is about timing. This is my third question that I would like everybody to answer on notice—but, Mr Hales, if you could answer today. When are you expecting the trial rollout to be operational for Willunga? And on what do you base that expectation?

Mr Hales—From the briefing we had on 10 March my recollection is that the physical rollout will be complete around August, there will be activation of the rollout and then evaluation would take place in January. I think it is all to be completed by the end of January or early February next year.

Senator FISHER—My supplementary question is: given the imminence of the rollout—August, the eighth month of this year—have you agreed a timeline to get to that implementation?

Mr Hales—No, we have not.

Senator FISHER—I ask the same question of everybody else, if you would not mind answering that on notice. Thank you.

CHAIR—Gentlemen, thank you very much for your attendance. We were overly ambitious in thinking we could have a complete discussion on this. There will be quite a number of questions on notice, which we will try and make simple and do not expect long answers to. The committee secretariat will send you some of the questions that have been flagged, and some others, if you could oblige us with answers. I know you are all particularly busy at this time of year, but thank you very much for your attendance and for your participation.

[11.57 am]

DALBY, Mr Stephen J, Chief Regulatory Officer, iiNet Ltd

CHAPPELL, Mr Gary, Design and Deployment Officer, iiNet Ltd

CHAIR—I welcome Mr Gary Chappell and Mr Stephen Dalby, from iiNet, who are appearing at our hearing today via teleconference. Thank you very much for joining us. You did send us some short notes on Monday. Thank you very much for that. I will ask you to make a brief opening statement before we go to questions. We are interested in progress, and particularly in your role in Tasmania. We are all very keen to hear how that is all going.

Mr Dalby—By way of opening we want to present some comments today at the hearing. We are very actively involved in the public discussion about the next generation broadband, the NBN, in Australia and we see ourselves as having a serious part to play in the process. It was for that reason that iiNet was very prepared to participate in any trial in the early phases of the rollout and we have done that. You would have seen that we participated in phase 1 in Tasmania, which is yet to put any customers on. But a lot of preliminary work is required in order for us to be ready and for us to have the relationship for the commercial supply of services over the NBN. I guess for some time now we have been saying that we are NBN ready and in those notes that I have provided to you I refer to some of those things.

The background work that has gone on has included increasing our capabilities in our own network infrastructure, whether by constructing new infrastructure or purchasing additional capacity in order to service customers who may be requiring a 100-megabits-per-second facility. We have done; that work is complete and our network is ready to go. We also have to build ordering and provisioning systems so that customers can acquire services from us and so we can take that through to installation and, naturally, billing. We have used fibre-to-the-home network at Point Cook in Victoria, to get those internal systems up and running and to develop product that will be immediately transportable onto the NBN. That (*inaudible*) customers in Point Cook. We do not as yet have any NBN customers in Tasmania or anywhere else, but we see that as being very much more of the same.

We also have some terminal equipment in each of the homes. Customers will be required to connect their computers or television services to the internet by way of equipment. We have what we fondly call our BoB product, which is a router and telephone service bundled together. We have demonstrated that, connected to the fibre, through the NBN Tas trial centre in Mornington.

That is up and ready to go and waiting for customers. You may have seen in the media this week where iiNet announced the relationship with FetchTV for the provision of internet television services. That is also ready to go. That is very much the sort of service we would expect to see on the NBN and, for the best results, you do need significant band width right into the home, so fibre is ideal for supporting a television service. That is pretty much it. Also behind the scenes we have now trained staff. We have been working with Opticomm, which is the infrastructure provider in Point Cook. They are also subcontracted to the NBN Tas and will be

the same company that we will work with to deliver services in Tasmania when they are available.

CHAIR—Thank you. I did not see in the media about your internet TV. I was too busy reading about your takeover program. We have a lot of questions on how it is all working, so we will get on to that.

Senator LUNDY—Thank you for your opening statement, Mr Dalby. Congratulations on what you have so far done in relation to Tasmania and on setting up your company to be NBN ready. Did your company welcome the fact that these bills were put out as an exposure draft in the first instance and do you have a view on how important it is that these bills move into legislation as quickly as possible?

Mr Dalby—It welcomed the exposure draft. I think it is very important for the broader community to be able to contribute to the debate and to offer any suggestion or point out any shortcoming of the bills, so the exposure draft was welcome. We did have some points, and I have added them to my notes. I think passing not only this legislation but any other bills that would improve the ACCC's regulatory regime is long overdue.

Senator LUNDY—So you support the approach of the bills to regulate the kinds of services that the NBN Co. offers?

Mr Dalby—Yes, I think that is essential. Certainly our experience in the last 15 years has been that a regulated environment is very important where you have got what is a monopoly asset.

Senator LUNDY—Do you agree with the approach outlined recently by NBN Co. in its industry consultation paper that it plans to offer only wholesale layer 2 services?

Mr Dalby—We would be very comfortable with layer 2. Similarly, we would be comfortable with layer 1 services. Whilst layer 1 may have been desirable—and that would be similar products to, say, unconditional local loop on the copper network or dark fibre as backhaul services from point A to point B—we are not restricted from acquiring backhaul services from other sources anyway. So that is not really an issue. In terms of the other benefits that come with the NBN, we are quite comfortable with living with a layer 2 world.

Senator LUNDY—Do you think that a distinction can be made between the kinds of layer 2 services that the bill would permit NBN Co. to provide, say, to a government health agency and the kinds of services that you get at home from an ISP? I guess what I am asking you to do is describe what could be done with layer 2 service access at the home.

Mr Dalby—The layer 2 is really just transport or an ISP who is going to develop products and services and then use the layer to deliver those products and services whether they are the traditional telecommunications suite of products or services or they are something that is a little higher value, like payTV and other content rich products, or things outside the telecommunications environment, like education and health services. Layer 2 really just provides you one of the components for a retail service provider to build a product that is required by its customer base. As I said, they may not necessarily be telecommunications services.

I have always had a concern about the use of the word ‘wholesale’ because it is not well defined. My question would be: who or what could be a wholesale customer? If I was Wesfarmers or the Department of Defence or some other large corporation that had the skills and the resources internally to develop their own telecommunications services for internal corporate use, what is stop them going out and putting a jingle up that says ‘I’m a wholesale customer’? There does not seem to be much definition around that. Even with this exposure draft to look at, I do not understand what the restrictions are of buying wholesale services.

Senator LUNDY—So is this an area of definition that you would like to see sharpened up in the bills that go before the parliament?

Mr Dalby—Yes. I think it is important to understand when it is described by NBN or the government as a ‘wholesale only network’ what that really means.

Senator LUNDY—Can I get a confirmation from you that, with the layer 2 services as they are currently described, it is not realistic to suggest that that would allow, under the current bills, NBN Co. to provide ISP style services to residential or traditional ISP customers?

Mr Dalby—No, not to an end user. There is a lot more required over the layer 2 service itself in order to turn that into a consumer product or a consumer service. It is only a component part of an overall product that would be developed by the retail service provider. I would not want to buy directly off someone like NBN Co. a layer 2 service because I could not really do anything with it. It is really just a piece of wire—or, in this case, it is a fibre.

Senator LUNDY—Thank you for that. I think that helps clarify the situation. I have a couple of questions about the anticompetitive regime and the more telco-specific provisions of the Trade Practices Act. What current protections are in place to ensure that access providers do not discriminate against access seekers, and is the non-discrimination test outlined in the exposure draft an improvement on the current access arrangements?

Mr Dalby—The current environment has enough room to drive a bus through most of those areas that talk about discrimination. I think we are all well aware of the failure over the last 10 or 15 years of the current regulatory regime, which seems to have been drafted initially on the basis that all the parties would be cooperative in moving towards a more competitive market. We have seen quite clearly that cooperation is not available, especially from the network owner and Telstra. Therefore the current regime really is dysfunctional and needs serious overhaul. In terms of the exposure draft, is there something specific there that you were looking for me to comment on?

Senator LUNDY—Protection against discrimination against access seekers—comparing the two regimes: the current situation and the exposure draft of the bill.

Mr Dalby—The area where we would like to get more clarity in the exposure draft would relate to the ability of NBN Co. to negotiate outside what might be undertakings or similar mechanisms. If things like discounts are based on an enticement to do business rather than cost savings that accrue to the network because of the form in which services are purchased, acquired or connected then it really provides an opportunity for discrimination, and I think that needs to be resolved prior to the bill being debated in the parliament.

Senator LUNDY—To go a little bit further on that, you would see that, given that the ACCC will be the regulator of access, that would be something on which we ought to look towards the ACCC to ensure that your concerns are addressed?

Mr Dalby—Yes, I think so. They have a tremendous amount of experience in working in this environment, and the tools that they have do not necessarily allow them to do the job that they want to do in the current regime. I think they would take that experience and those learnings from the current regime and say, ‘These are the areas that need tightening up.’ That would include those sorts of discriminatory issues. That was a long way round to say yes!

Senator LUNDY—One of the provisions in the exposure draft is that any key terms of agreements between access providers and access seekers are made transparent to both the regulator and the market, including the proposed approach of publishing variations to standard access agreements—which I guess is what you are talking about—on the ACCC’s website. Does that go far enough or do you want to see that tightened up even more?

Mr Dalby—That is really after the event. I think that transparency is important, and I would like to see an increase in that. But to publish the terms of agreements that have been negotiated as a *fait accompli* after the deal is done is different. I think the transparency really needs to be more before the event rather than after the event. I am not too sure how to achieve that.

Senator LUNDY—No. But it goes to your earlier comments, as well as wanting to see that area looked at as far as being able to strike agreements outside the standard access terms goes anyway.

Mr Dalby—We do not have a difficulty with that in relation to our agreement. We think any access seeker ought to be clever enough to be able to try and negotiate an improvement in the terms. That really should not provide the differentiation between their offering to their consumers and anybody else. The differentiation should come from service levels, product definition or innovation rather than some sort of wholesale supply agreement that they have managed to negotiate in private.

Senator LUNDY—Thank you. I want to go back to something you raised in your opening statement about IPTV and the amount of innovation that has been occurring within your business. In your view where does all of this effort in working with NBN Co. place iiNet in terms of your level of innovation and standing in global terms of the next generation of internet service provision on the back of—in Australia’s case at least—the prospect of a universal high bandwidth network. I am interested in your views on the international comparison of where you are at as a company in relation to where the future lies elsewhere.

Mr Dalby—We would consider ourselves at the forefront of innovation certainly in Australia but when we have a look at other similar companies around the world—we have visited Europe especially—we have seen bits of things that we have adopted which have happened years ago in other parts of the world. IPTV for example has been delivered in France quite successfully. I was there in 2007 and they were well and truly up and running and had been for some time with a company called Neuf Cegetel. We are not as a country necessarily cutting edge but with the combination of fibre to the home and the willingness of Australian companies to innovate I think we would certainly catch up with the rest of the world with the sorts of services that we are

planning. That is quite exciting. We would be spreading the word in terms of the need for innovation and application development in Australia because there is potential for Australia to take a leading role in application development for fibre services to the home. We would like to be part of that.

Senator LUNDY—Thank you. Congratulations to iiNet on what you have achieved to date.

CHAIR—I want to ask some questions about how you are going in Tasmania and later on about your wider role. You are one of three of what we call a retail provider in Tasmania.

Mr Dalby—Yes.

CHAIR—Has there been any announcement when NBN Tasmania will start actual operations with customers?

Mr Dalby—They have fibre deployed in a number of locations already in Tasmania. In terms of providing services we are aiming for June of this year. From our perspective we have everything in place ready to go. We have not commenced any marketing or sales activity and we will not do that until probably closer to the launch date.

CHAIR—If I were a Tasmanian and wanted to sign up with you, what pricing would you offer me?

Mr Dalby—We have not released the pricing for Tasmania as yet because we still have not executed the terms of agreement with NBN Tas. We are fairly comfortable that we have that agreement very close to execution but it is not executed as yet. I can still answer your question though in that we have products, as I said, on fibre to the home in Point Cook in Victoria and our expectation is that we will be offering the same services to Tasmanian customers as part of the NBN rollout. It will be the same product that we are offering at Point Cook at the same price.

CHAIR—What price is that?

Mr Dalby—From memory as an entry level price we offer 25 megabit bandwidth for \$49.95 but it goes up to a full 100 megabits.

CHAIR—What would 100 megabits cost me in Point Cook?

Mr Dalby—I can provide that to you.

CHAIR—As I recall your evidence previously, you have a very big operation in Western Australia.

Mr Dalby—Yes.

CHAIR—Do you know off the top of your head what a normal package—whatever ‘normal’ is—would cost me for you to retail it to my home in Western Australia?

Mr Dalby—We are a national company, so we have a lot of customers in New South Wales, Queensland and Western Australia. With the acquisition of Netspace, which was mentioned earlier, we now have a large customer base in Victoria and Tasmania. Our prices are uniform across the country. It does not really matter where you are. We offer the same prices. We have an entry level price of \$49.95.

CHAIR—Per month, for 25 megabits?

Mr Dalby—On the copper network, we offer ADSL2+, which is notionally up to 24 megabits, so it is slightly different, but that will depend on where you are. One of the reasons that we are looking forward to moving to a fibre based service is that we can generally guarantee customers will get the speeds that are advertised, whereas with DSL that technology varies depending on how far you are from the local exchange and the quality of the copper in the ground.

CHAIR—If price is not a consideration, what is the best speed you can give me on anywhere in your network currently?

Mr Dalby—A hundred megabits per second in Point Cook.

CHAIR—What would that cost me?

Mr Dalby—I would have to look it up.

CHAIR—Would it be close to \$100?

Mr Dalby—I will look it up while you continue to ask me questions. I will have a look on my website. I am in front of my computer.

CHAIR—Okay. Do you have good speed on your computer?

Mr Dalby—Yes, I do.

CHAIR—What would the expectation be of your client base in Tasmania?

Mr Dalby—Do you mean expectation of the size of the base or what they want?

CHAIR—How many homes would you hope to have connected through iiNet?

Mr Dalby—Probably in excess of 10,000.

CHAIR—What you will charge those people will depend on what NBN charges you for the wholesale service, I guess. Is that right?

Mr Dalby—That is correct.

CHAIR—That is what you said you have been discussing with NBN and you feel that you are close to agreement on that.

Mr Dalby—Yes. The agreement covers a lot of things. It certainly goes beyond the basic price. There are connection charges, there are operational requirements and there are implications for ordering, provisioning, tracking and reporting—all sorts of things. So the agreement is a lot more complex than just sitting down and arguing a price. I have those fibre prices here now. For the top of the range product, which is 100 megabits and 180 gigabytes of download capacity, it is \$159.95.

CHAIR—Is that per month?

Mr Dalby—Yes.

CHAIR—And that is available now.

Mr Dalby—Yes.

CHAIR—But you would hope that, with the NBN, the cost for 100 megabits would be much less than \$159.

Mr Dalby—The cost price and the sales price will be different.

CHAIR—I meant cost price to me as a customer.

Mr Dalby—The products that we are planning to offer in Tasmania will be the same as the products we are offering in Point Cook. That is our expectation. As I said, we still do not have that agreement, but that is our expectation.

CHAIR—As I understand it, the NBN Co. is taking the fibre up to the front fence. Is that correct?

Mr Dalby—It is taking it into the premises.

CHAIR—NBN Co. will deliver the fibre right into my lounge room?

Mr Dalby—They will bring it into the premises, whether that is on the outside wall or into the roof cavity or some arrangement, and then companies like ours will provide the final few metres of cabling or wireless link into your lounge room.

CHAIR—Can you explain to me in simple language what physically will happen when we say go, when NBN Co. or the government say go. Will someone from NBN Co. come out onto the footpath, connect me up from the footpath to my front door and then at the front door you will come in and do something that allows me to get services in my lounge room? Is that how it works? If not, could you tell us how it will work.

Mr Dalby—That is fairly close to it. I guess it will vary from place to place, depending on whether underground fibre is being provided or aerial fibre, which might be strung from existing power poles. But the concept is very much as you have explained it. NBN Co. will provide the fibre all the way to your premises, whether that is a single dwelling or a multiple dwelling like apartments or business premises, and then the internal cabling/wiring will be the responsibility

of the customer, as it is today for copper. We would certainly come out and do the installation for the customer.

CHAIR—Assuming that NBN Co. has the fibre on my front footpath, and I am just a normal residence such as a stand-alone house, when it is time to go, someone will come up and dig a trench along my front garden, or connect it overhead next to the electricity cable. Is that right?

Mr Dalby—Yes.

CHAIR—Once you say go, how many do you expect to connect each day, each week, each month or whatever the criterion is?

Mr Dalby—We have not really made those sorts of projections. Phase 1 in Tasmania will give us enough information to see what the demand is like and what the issues are in relation to those connections. But in order to connect the whole of Australia over to fibre in eight years there is going to have to be a lot of services connected every single day. Phase 1 in Tasmania involves only a small group. The pilot, if you like, has some limitations on the total numbers to be connected, so it is not going to be massive numbers.

CHAIR—Have NBN Co. said to you, in a way that you can pass onto us—if it is confidential, of course, we would not expect you to—'Stephen, you can anticipate that we will have 10 connections available for you every day'? What have they said their capacity is, in the examples I am using, to get the footpath to the front door cabling? Have they given you any sort of indication so that you can start working on how many people you will need to employ to take it from the door into the lounge room?

Mr Dalby—No. We have not agreed on numbers of services, other than that there are limits—fairly low limits, I have to say—in phase 1. We are not expecting technical resourcing to be an issue in phase 1 in any way. I think it is well within their capabilities to provide us with the support we will need for the customers that we will bring.

CHAIR—If you are going to start commercial operations in June, which is six or eight weeks away, you would need to be soon approaching me as a prospective customer and offering me a deal, wouldn't you?

Mr Dalby—Yes, we would. The phase 1 exercise involves three small towns, three defined locations, in Tasmania. We will be able to market to those customers directly. It is unlikely to be a national television campaign.

CHAIR—I am just trying to get a handle on how this will all work. I am anticipating there will be a lot of free publicity by way of news releases and those sorts of thing, because this is the first of what is going to be an Australia wide scheme. I am curious as to how you, as a private company, are planning to get a return on your investment. You will not get a return in June, but how are you going to start the process of getting a return in June?

Mr Dalby—We are planning on fairly targeted marketing to those potential customers. We already have customers connected via the copper network in those locations. They will be our primary group that we will target to offer services via the NBN. As I said, it will not need a

massive television campaign; we will do that directly with those customers, because we have their contact details.

CHAIR—To those currently on your copper network, would you expect to be offering them a service at the same price, or a higher or lower price? Clearly, you would be offering them a better service, but do you expect it to be at the same price or at a higher or lower price—or am I asking commercial-in-confidence questions?

Mr Dalby—No, no; that is fine. These numbers are public already. As I said, the fibre products that we are offering to Point Cook are planned as the basis of our offering over fibre in Tasmania. They are not exactly like for like but, if we compare similar to similar, you can get the DSL2+ service that we offer today on copper for \$49.95 a month. On fibre for Point Cook, there is a 25 megabits per second service, which is similar to what we are offering for DSL2+ on copper, which is also \$49.95. So similar for similar is the same price.

CHAIR—Okay. Obviously, from that, you have got a wink and a nod from NBN Co. about what they are going to be charging you or your customers for the trunkline service, if I can call it that.

Mr Dalby—Yes. We will be able to do that on a commercial basis at that price.

CHAIR—So NBN Co. then must have some idea, in Tasmania at least, of what they are going to charge across the state for their service. Perhaps you cannot comment on that.

Mr Dalby—I can just repeat that we have not executed that agreement yet, but that does not mean that they have not indicated to us the price structure for their access services.

CHAIR—Okay. Very quickly, following up on Senator Lundy's questions, do you know what architecture NBN Co. are proposing in the rest of Australia, apart from Tasmania?

Mr Dalby—In broad terms we have got a clear understanding with NBN Tasmania that whatever we do in Tasmania is by way of pilot and trial and will not be used as the basis for a template in the rest of the country. We understand that and we are happy with that. We think that it is an appropriate approach. But, in terms of the broad network configuration, yes, that has been public for some time.

CHAIR—Have you had any discussions with NBN Co. regarding the acquisition or leasing of your current infrastructure around Australia?

Mr Dalby—No.

CHAIR—Do you have any indication of the extent to which NBN Co.'s proposed architecture will impact on your infrastructure and whether your current infrastructure will be rendered redundant, stranded or duplicated by what NBN is going to do around Australia?

Mr Dalby—We expect the equipment that is currently located in exchange buildings, which are close to the end user and provide the DSL product—which is generally referred to as DSLAM—to be made redundant over time as the NBN provides fibre access direct to the end

user. And that is not an issue for us, because the payback period on that equipment is taken into account when we deploy it and we expect to get a return on that. The longer it is in place, the longer we get a return. But, again, the improvement provided by fibre to the home will be well worth making that old copper-based infrastructure redundant. We do not have an issue with that and we factored that into our business planning.

In terms of the other infrastructure, which are the long-haul links between locations—it is often called backhaul; it might be between capital cities or it might just be between metropolitan areas—my understanding is that they are all long-term leases or short-term leases for us. We do not actually plough cable into the ground ourselves and own the infrastructure, so that question is for others from whom we lease that capacity.

CHAIR—Finally from me, before I pass to Senator Fisher for a couple of questions and then back to Senator Lundy for clarification, my reading and commentators' reading of the exposure draft seems to suggest that NBN Co. has the ability to be a retailer if the minister so determines. It is entirely at his discretion. There also seems to be, in the future, the possibility for anyone to buy into NBN Co., and 'anyone' includes, for example, Telstra, which is now the third player in the business in Australia and perhaps will even move up the ladder in years ahead. Are you concerned at the possibility in the exposure draft of the very wide discretion given to the minister to, as I and commentators understand it, retail to some people—perhaps even governments, obviously at the expense of other retailers? There is also the question of ownership, and the exposure draft seems to have a fairly large number of questions to answer in relation to how that would apply. Would you like to make a general comment about those issues? As I said, it is now one of the very big players in the Australian telecommunications area.

Mr Dalby—Certainly. The question about retailing direct from NBN Co. to end users is a question that does concern us. We really need more information generally—not just us but the whole industry—about what 'wholesale' means. Whether the term used is 'retailing' or 'wholesaling', it is the supply of services to a large customer, whether that is a government or a government agency. That needs some definition. I do not see what would prevent any large organisation—whether that is Rio Tinto, Wesfarmers, Channel 10 or anybody else—going direct to NBN Co. and saying, 'I want a big fat fibre between A and B, and I have just bought myself a carrier licence, and I will buy it from you on wholesale terms.' There is no retail service provider involved in that equation. It concerns me that there is no clarity about the flexibility the minister is giving himself in order to say yes or no in that instance that is acceptable. It does not matter whether it is a government agency or any large organisation. We need some clarification around what 'wholesale' means. Does it mean you buy a big fat pipe or does it mean that you have to meet certain conditions as a telecommunications company in Australia that is providing retail services to end users rather than a large company buying services for its own purposes? It would be very easy for someone like, say, the Seven Network or any of the other big corporates in Australia to set up a small team internally, buy a \$10,000 carrier licence and declare itself a phone company or a telecommunications company and then rock up to NBN Co. and say, 'I want to start buying services,' and their only intention ever is for their own consumption; it is not to onsell to consumers or other businesses. It is a concern that there is lack of clarity in that area of the draft, and that clarity has not improved over the last 12 months, I have to say.

In terms of ownership, the concern that we have had is that NBN Co.—and this really goes towards the question of 'wholesale' and 'retail'—should not be supplying to end users

themselves. If that is the case, it really does not matter what the share register looks like—whether it is made up of companies like us, Telstra or anyone else for that matter. If it is an independent company that has constraints about who it can supply to, then we really do not have a problem with who might be or might not be an owner.

CHAIR—Again, there has been media comment about Telstra, say, doing a deal with NBN to say, ‘Look, you can have all our copper network but, because we’re going to be your biggest customer, how about a special deal for us because of our volume which is a much cheaper price than you are going to offer to iiNet, one of our emerging big competitors?’ Is that a problem?

Mr Dalby—That does concern me. It concerns me if the basis of the private discussions about a deal are just purely based on providing an incentive to someone to come into the camp. I am struggling to understand how purely volume can generate any savings for NBN Co. If it is a production process, you could understand that economies of scale would kick in and there would be cost savings for NBN Co. and then they might pass them on to the purchaser of the services. But, in terms of fibre and the delivery of telecommunications over fibre, it does not leap out to us that volume alone generates savings for the network. So we could not see volume alone as the basis for a deal. There may be other reasons that there would be some savings that would accrue to the network, and that might be where services are picked up—are they picked up closer to the consumer or further away from the consumer—thereby saving NBN Co. costs in association with carriage or infrastructure. You could therefore understand that there are some savings and they can be passed through as part of a negotiated agreement. But volume alone does not do that for us. We do not see that as the basis for a lower price.

Senator FISHER—Mr Dalby, you have indicated in your comments to the committee concern about NBN’s inability to use statutory powers to install NBN facilities, you say, into houses, but I presume from your earlier evidence you mean as close as they can get to houses. You suggest that NBN Co. needs to be able to make those installations without landholder consent on the mainland given, you say, the scale and the time frame for implementation. Can you expand on that very quickly? What has been the experience in Tasmania? Has NBN Co. Tasmania had those powers?

Mr Dalby—No, they do not. This has come to our attention as part of the agreement discussions that we have had with NBN Tasmania for deployment in Tasmania. In developing the service agreement with them, this has become an issue. We believed initially that this was not an issue but it has turned out that it is because the powers the carriers had at one stage that allow them to enter premises and cross property without permission of the landowner apparently disappeared. There was a sunset clause on that legislation and they have gone away.

We are concerned that, if we have to provide a service to Mr and Mrs Smith living in a premises that they do not own, or they do not own the land that the premises are on, in addition to negotiating with Mr and Mrs Smith for appointment times to come and install the modem and connect up the service, we will also have to get permission off the landowner. I think that is a bit of a weak point in the current legislation as it stands. The power was there in the past and it appears that it is no longer there—it has expired. That is probably about as far as I can go on that because it has only really come up—

Senator FISHER—Have you had to use it in Tassie, though? Has that power had to be used in Tassie?

Mr Dalby—No, it has not, because we are not at the point where we are actually installing into premises.

Senator FISHER—But you think it will be needed, obviously.

Mr Dalby—I think so, on the larger scale. As we scale up the deployment to hundreds of thousands of homes, that is an issue that could possibly delay things.

Senator FISHER—What do you expect the landholder and local council response to that sort of proposition to be?

Mr Dalby—I think there will be a mixed response. Some will be deadset against it. We have seen that with the cable TV rollouts in the nineties, or whenever that was—there were varying levels of opposition. Some were steadfast and others were quite happy to facilitate it. It is the same with mobile towers.

Senator LUNDY—You mentioned Point Cook. I just want to clarify: is the 25 megabit service at \$49.95 per month your entry-level product?

Mr Dalby—It is, yes.

Senator LUNDY—You mentioned that there is a difference in the 25 megabit product on your fibre infrastructure as compared to the analogous product for the same price on ADSL2+. Can you describe the technical difference between the quality of service for ADSL2+ and a fibre-to-the-home 25 megabits per second service, please?

Mr Dalby—Certainly. The difference for the consumer is probably not that noticeable but for us, in terms of the deployment of equipment and our ability to deliver services, there is a fair amount of difference between something that can be provided over copper infrastructure and something that can be provided over fibre. With copper and the DSL technology that is widely used for broadband today, the closer we can get our DSL switches to the customer, the greater the bandwidth the customer will be able to get. Generally they refer to that as speed. That is not the case with fibre. Fibre will handle distances with much less degradation of the service or bandwidth, so we do not need to get as close to the customers as possible.

What we see with DSL broadband is a huge variation between the service for a customer living close to the exchange and the service for a customer that is maybe five or six kilometres away from the exchange. It is markedly different. The customer close to the exchange will get much higher bandwidth than the customer further away. Services like TV over DSL will probably not work for those customers that are further away, which means they will have fewer services. When they are downloading their latest versions of software or other big files closer to the exchange they will get that very quickly; further away from the exchange they will have to wait longer periods of time. With fibre we expect that difference to be less noticeable and, regardless of where the customer is, they will experience very similar speeds, very similar bandwidth. So the qualification, if you like, for the customer as to whether or not they can get

things like TV will be less strict on fibre than on copper. So probably everybody will be able to get TV over their fibre based product rather than their copper based product, where only some, maybe half, will qualify.

Senator LUNDY—Thank you for that explanation.

CHAIR—Thanks very much, Mr Dalby. As I say, if you would not mind answering on notice a couple of questions we have not had time to get to. Thank you very much for your involvement today. It has certainly been very interesting and clarified a lot of issues.

Mr Dalby—You are welcome; thank you.

Proceedings suspended from 12.48 pm to 1.23 pm

COLE, Ms Cherry F, Human Resources Consultant, Communications and Information Technology Training Ltd

FOTHERGILL, Mr Kevin Lionel, Industry Manager, Communications and Information Technology Training Ltd

RAGG, Mr Elliott Hugh, Co-Chair, Digital Television Industry Association Inc.

CHAIR—Welcome. Thank you very much to the three of you for coming along. Do you have any comments to make on the capacity in which you appear?

Mr Fothergill—CITT is the parent company of the TITAB Australia organisation.

Ms Cole—I am working with CITT as an independent consultant.

CHAIR—Just for my benefit, are you associated more than as professional colleagues? Do you form some sort of association or group?

Mr Fothergill—It is a fairly loose association. We have an organisation and then we have a number of people such as Hugh who are in industry associations and such as Cherry who are independent consultants, and we have another pool of consultants that we call on. In terms of our permanent staff, they are dedicated to running a registry, learner resources and a whole raft of things. But we, as representatives of the organisation, are here from separate organisations.

CHAIR—There was some background information provided to us earlier this week. Thank you for that. Would anyone, or all of you, care to make a brief opening statement about your particular involvement, current or prospective, with the National Broadband Network and where things are at?

Mr Fothergill—I can make a start and be supplemented by my colleagues, if that is okay.

CHAIR—That is fine.

Mr Fothergill—You will have to guide me on time, because we are a little unclear about how much time you allow us.

CHAIR—We have about half an hour or a little bit more. We would like to hear from you for about 10 or 15 minutes in total and then have some questions.

Mr Fothergill—In summary, the organisation itself has an arm that looks after a registry for ACMA registered cablers. That has been an outsourced activity from ACMA for some time. We look after the largest registry for cablers who work inside the buildings doing customer cabling and data cabling. That is one of our primary interests. We also have a role in developing some training products. We generally work in strategic alliances with organisations, whether they are in Western Australia, Victoria or otherwise, and public or private registered training organisations to produce material. That material is sold on a cost-plus basis to registered training

organisations, public or private. We also have some consultancy activity with the telcos or others from time to time. We also occasionally do projects for government in various forms.

The origin of the organisation is that it is a leftover from the old Netforce arrangements. If people can remember the traineeship placement, we were placing trainees in telecommunications and IT. That is where the ICT has come from. We were work in with the ADTIA, ATUG and a lot of other organisations that you have probably heard about with respect to telecommunications materials. Training is our main focus. We have been along to all of the presentations of the NBN Co., have attended a lot of the Comms Alliance sessions and we are on some of the committees of the Comms Alliance. We are members of ATUG as well. That is a sort of thumbnail sketch. Hugh and Cherry may want to supplement that and talk about what they see their roles as.

Mr Ragg—From our perspective, it is really bringing the training sector to the forefront in our industry in the digital field. It has run on from analog field to the digital field of television. It has been largely unskilled, and what we are trying to do is get people skilled to do this sort of work—and it will go right through from television through to NBN in the house. That is where we are really trying to upskill our workforce. We see that there is a need for people to be better skilled in the industry as a whole, because it has been very, very loose over the years. I guess our mission is to get people to (1) feel better about themselves and (2) understand that there are career paths in the industry, which there has not been before.

Ms Cole—Perhaps I will just supplement those comments by letting you know my background. My primary focus in being here to support the CITT submission is with a background in vocational education and training. In the recent past I was the general manager of one of the 11 Industry Skills Councils funded under the DEEWR core grant funding arrangements. We had a remit that included telecommunications and information technology, amongst six other industry sectors as well. The primary reason for us being here today is really around the training and education, workforce development and strategic planning associated with NBN. I think we all come from a slightly different historical background—I have actually spent 20 years in Telstra as a senior human resources executive—and we bring a slightly different perspective around our experiences to what is technically a very complex and very significant national infrastructure project.

From that perspective, in all of the forums that CITT is engaged in it is very obvious that there are a number of areas of concern in the skills formation area for this particular government initiative. With that in mind, we have had some considerable thought about the sorts of strategies which should be put in place to maximise the outcome for NBN. The basic underpinning assumption here, of course, is that, with the best will in the world and with all the technology in the world it is in fact around the workforce that you get the cost-effective, timely distribution and high-quality infrastructure which we are seeking under NBN. So if there is a risk there, that is the sort of area we would like to have some dialogue about.

CHAIR—Thank you. What sorts of skills will the NBN require as it rolls out over the next eight years and what sort of availability is there currently in Australia in those skills areas?

Mr Fothergill—At this point I would like to table some supplementary material. I understand that is the formality of it.

CHAIR—Yes.

Mr Fothergill—We apologise for not putting it in earlier but we had all sorts of problems with late advice—that was probably more our fault than anyone else’s. So we table that. I understand you will not have time to read it today; I am not suggesting that. To come back to the question you asked, our view is that there are some priority areas in regard to the immediate NBN rollout in the context of running the cable down the streets, down the estates and into the buildings. As you well know, the NBN Co. is only going to be responsible for between the boundary point of the customers’ premises and the point of interconnect down into the back part of the network.

We have been part of a process over the last 15 years of developing training packages for certificates, from certificate II to through to advanced diploma, and skill sets. What we see as the more immediate need is upskilling of the people who are going to be doing the run-out work down the streets, whether it be cable or underground and the people who will be running the lead-in across to the customers’ premises. Even though NBN Co. is saying that it is not going to be interested in the customers’ premises side, because it is on the ACMA-regulated side of the boundary, the fact is that on the customer premises side, whether it is a commercial building or a domestic building—and much of this will be domestic, as you well know. Most big buildings have access to fibre anyway so this is predominantly small business and domestic. There will be a need to upgrade the cable in many houses, I would suggest in the majority. The majority have cable which was designed for the copper network, for the analog telephone network and for the broadband there will have to be upgrades in most instances in that area.

In answer to your question, the priority areas we see are going to be in the immediate rollout of the network, be it above ground or below ground and the upgrading of the customers’ premises. Then there is a whole raft of skills that will be involved in the network. On the face of it, we are not really interested in the network skills and the IT skills to support the products which are going to come out from the retail service providers at this point. We are interested in the physical network and the wherewithal to deliver the optical fibre and broadband services to the homes and to the small businesses. That means skills sets, which are already there in a nationally accredited training document at this point and which are somewhere towards the certificate II or certificate III level, but they are not a full certificate because employers are not really interested in getting full certificates or the like in all cases—in some cases yes, but for this rollout they will be using contract labour. The contractors will want to keep their costs to a minimum and they will try to do repetition work where they can with a lower level of labour. So it really is a mix of skill sets and certificate II and certificate III levels would be the priority, certificate III being approximately trades.

CHAIR—I repeat these very basic questions. I am not being serious when I say this, but if the work involves getting a shovel, digging a trench from the footpath to the front door, putting in a bit of cable, getting a hammer and nailing the cable in through the front door, what skills do you need to do that?

Senator FISHER—I am glad you said it was not a serious question!

CHAIR—No, it is not a serious question. What I am really asking is: what exactly are the requirements? Do you have to be able to operate a trench digger or what?

Mr Fothergill—I was not sure how much detail you wanted. That part of the sector, we believe, is probably not going to be too bad. That involves diggers, boring tools to go under the road and to work above ground et cetera. So to answer that question: the cabling in the customers' premises and the cabling in the street will need a higher level of labour. They will not be people digging holes and trenches; they will be technicians and technologist type people or people with a background in the military or electrical areas and who have been trained in telecommunications, cabling and the like. For the cabling in the sector of the customers' premises and in the network itself there will have to be occ health and safety training and there will have to be fibre training, because there are hazards with fibre. People do not always understand this, but there are laser hazards and prick hazards, for want of a better word.

As well as that they will need a raft of upgraded skills for antenna and satellite work, which is one of the areas that Hugh is very interested in—in some sectors you will use wireless solutions, because the cable will not be satisfactory. Then there is the testing and commissioning of the network termination device. The network termination device is not just a box that is dead, just a terminal, as it is in current telecommunications. This will be live. It will be powered by 240 volts. The 240 will be broken down into telecommunications voltages, but nevertheless will be 240 to the optical network termination unit, which may be outside the building or may be inside—those are policy issues that will have to be worked out district by district.

So we see a range of skills where people are already working. There is something like 63,000 cablers who work on the inside of the premises who are licensed or registered with the ACMA. There is another pool of something like 5,000 to 7,000 who work for the pay TV companies and the telcos, who are predominantly small contractors working for the bigger companies. Those people's skills will need upgrading, but there will also be people who will need a whole range of reskilling on testing, occ health and safety and the new techniques for handling fibre, for jointing and testing. The testing is a big issue.

CHAIR—There are 63,000 in Australia at the present time?

Mr Fothergill—In terms of being registered to work inside the customers' premises on telecommunications and on data cabling. It is a mandatory requirement.

CHAIR—How many of those would be currently actively engaged in that sort of work in Australia?

Mr Fothergill—I would say the lot, quite frankly. We have roughly 23,000 on our registry, so I can comment on our registry. We have a lot of people who are ex-Telstra, ex-military, ex-Optus—and current Telstra and Optus—and others as well. We have done some scans of their skills. Many of them have telecommunications skills from Telstra and Optus that may be in-house qualifications. Many of them would have certificate II, certificate III and a lot would have advanced diplomas. They may be working as cablers but they are putting in PABXs, routers, wireless networks and home theatre stuff. Any of that stuff that connects back into a telephone network or is likely to be connected at some time in the future—it does not actually have to be connected—is covered by the ACMA rules. Outside of there it is covered by the enterprises. That pool of 7,000 or so that rotate between the telcos and the pay TV area would be drawn from all walks of life, but generally speaking they would be pretty well trained.

CHAIR—We have had evidence—don't hold me to the figures; perhaps Senator Lundy might help me here—that with the rollout of the NBN within the next eight years we would need 3,000 homes connected every day.

Mr Fothergill—One of the figures that NBN Co. put at the consultations session I was last at was 4,000 per day, when they ramp up.

CHAIR—Four thousand connections per day?

Mr Fothergill—Yes. You would have to work out what is a connection, because a connection could be undertaken remotely or it could be the running of a cable. I thought the answer I got was that they were running a cable connection every day. In other words, it was actually being connected to the 4,000 households every day and then, of course, there is remote activity to connect to the computer or the retail service provider, which would be a separate activity.

CHAIR—Bearing in mind that the 63,000 currently employed are obviously gainfully employed at the present time, what is your combined thought about how many we would need to do the 3,000, 4,000 or 5,000 homes a day?

Mr Fothergill—There are some industry figures around. I would have to be honest with you and say that it is fairly rubbery because it is very hard to get good stats in this sector, because it is a relatively new sector in the context of being taken away from Telstra and away from the common carriers, so a lot of the data at the state level is a bit hard to gather. The popular figure is something around 30,000. I think that is fair to say.

CHAIR—On top of the 63,000?

Mr Fothergill—On top of the existing workforce—yes.

CHAIR—You would need 30,000 newly skilled people, who are obviously not already in the industry or do not have that particular skill?

Mr Fothergill—They could be in the industry, working in other parts, or they could be from another sector. They could be from the electrical sector or drawn from a number of other areas. I emphasise that that figure depends on whether they are doing the 4,000 a day and a number of other factors.

CHAIR—It depends on whether Telstra is still operating. It might have been forced into liquidation by then!

Mr Fothergill—If you use the existing infrastructure, for example—and there are different messages, as you well know, coming out of the media—of the HFC, of Telstra and Optus, and rolled that in by some agreement, it is possible to extend the fibre quite economically to remove some of the coax and actually extend the fibre closer to the premises. Those things will affect the workforce numbers and the costings.

CHAIR—Clearly, whatever happens, there will be a need for new people in the industry. How do we go about training them? Who trains them?

Ms Cole—Perhaps I could make a comment at this stage. The vocational education and training industry is very well equipped potentially to do much of the training and reskilling that is necessary. We need to recognise that there are in fact going to be multiple sources of potential workers that will come to training with very different underpinning skills and knowledge. Over time, given that we are dealing here with an eight-year rollout program, we really should be looking at a workforce development strategy that is for the short term, the medium term and the long term. With that in mind, you might have new entrants—ex-school, for example—who would have particular training needs that would be very different to people who might already be working in the industry or working in related industries. For example, one of the sources of people into the cabling area has traditionally been electrically qualified people who have a top-up training regime that allows them to work on telecommunications equipment.

With a number of the higher end skill areas beyond cabling, into more of the testing, diagnostics, planning and higher end telecommunications engineering work associated with NBN, you might be pulling people from a wide range of areas of expertise. The VET sector can in fact deal with most of the sorts of suites of training that is necessary. What we do have some concerns about is that, in the recent past, there has not traditionally been a large amount of training undertaken through TAFE and public provision. If you look at the statistics held by the NCVET about training effort you will find that the numbers are very small. That is in fact the tip of the iceberg because there is a large amount of hidden training effort undertaken by enterprises, carriers and the like.

So for us the issue is about getting quality training and quality outcomes on the job. There would be a need to ramp up and increasingly support the existing VET infrastructure to take on board the very large and national training effort that would be necessary to create that workforce. Whilst the infrastructure is there, the organisations are there, Skills Australia is very strong—and has recently published a very interesting document associated with workforce development across the economy—and the industry skills councils that are relevant to this industry are very active in their industry-specific planning, there would need to be a fairly considered and nationally coordinated effort to ensure that all of the registered training providers and others would in fact be capable of delivery and would be delivering the right types of programs so that in the end you would be guaranteed of having a workforce that could deliver a timely, cost-effective and quality NBN.

CHAIR—And safe.

Ms Cole—And safe, absolutely. So there are a range of criteria that I think apply more now, with the NBN imperative, than perhaps might have happened in the recent past in other telecommunications areas—without putting too fine a point on that.

CHAIR—There was a comment that these cables will be live electrically—that is my interpretation; perhaps it is not correct. Does that mean that everyone involved in this vocation will need to have, at the very minimum, basic electrician training?

Mr Fothergill—We have put in several of our submissions to date that the history of this issue is that it is national, virtually from the days of Federation. This is national, so the licensing and all those controls have always been national, not split up into the states as they are for plumbers, electricians and the like. It really depends on the final way in which the network

termination device is installed but, on the indications we have been given to date, one thing is for sure: it is going to be powered from the mains, from the 240. The question is whether it is going to be powered by a link from the meter box, on the provider's side of the network boundary, which is your fuse box and the like, or whether it is going to be from a standard socket with a power supply. There are two points of view at the moment. I do not think anyone really knows the answer, other than that the device will be powered, it may have battery backup and the powering will be from a 240 supply broken down to telecommunications voltages, which are typically about 50 volts.

CHAIR—Could you answer my question using both scenarios?

Mr Fothergill—I am not saying it is a popular view with some of our colleagues in the industry sector, but we have put forward that a telecommunications technician, already suitably trained and meeting the requirements of the ACMA, should be given a training program to get what I will call for this session a limited—or restricted, or telecommunications—electrical licence permit to be able to install a power supply for the network termination device. If we do not do that, what you will find is that there will be all sorts of IR issues and the like, with arguments over who actually does the installation. There are not enough electricians to do this work. That is a fact of life. To be specific, we believe that there is a very short training program for people who are, say, ex-Telstra, ex-Optus or ex-military for them to be able to install either a power point or to be able to work to put the power to the network termination device—nothing else, no other electrical work. People who are relatively new in the industry, who come in from employment elsewhere or whatever and who are not trained by a carrier or somebody has got a reputable training program, may need a bit more, but it is not Rhodes scholar stuff to install 240 to supply that unit.

CHAIR—I have promised my colleagues I will not raise recent issues, but have you warned governments that this needs to be very carefully dealt with so we do not have deaths?

Mr Fothergill—We have put it in papers that have been submitted to the minister. We have put it in papers that the Comms Alliance have submitted to the NBN Co. We have put it in papers that the Australian Telecommunications Users Group have submitted to NBN Co. and the government. Our problem is—and we have tried to reflect this, if you do get an opportunity to read our paper—that we do not have a champion in our industry. This is a fragmented industry, in the sense that Telstra did all the work years ago and now it is fragmented and we do not have what the building industry or the electrical industry might have in terms of a champion and organisations to go forward.

I would argue that we have put it in as many papers and as many forums as we have access to at this point, and obviously we have put it in our own internal publications for our 23,000 souls. We are not suggesting that that every telecommunications technician can come in and do that work. We accept that there needs to be a proper training program on low voltage—240 volt. Most people would have a very good OH&S background in electricity anyway. We share ducts in the houses already. We do work that has a separation requirement for telecommunications, computer and electrical cabling. It is co-located cabling, if you like. So most people would already have some training in electrical cabling. But they would absolutely need some extra training.

CHAIR—You say you do not have a champion, but aren't you the basis of that?

Mr Fothergill—I would like to think so, but I do not think we have that power.

Ms Cole—Probably the resourcing does not reflect that!

Mr Fothergill—In the presentations that I and my national executive officer and a couple of other people up in the audience have been to, we have raised the question of training and all these other issues. One of the problems we have in this country is that the NBN Co. will say—and I hope I am not misrepresenting them—'That is a contract problem; we are going to write that in our contract of requirements.' But when you say to the contractor, 'How are you going to do this?' they say, 'With great difficulty.' It is one of those problems we have had for years—since widespread contracting came in. The contract cycles are maybe two years so they do not have time to train people up to what they would really like. In Hugh's area, in the digital sector, the ADTIA are trying to get industry mandated qualification levels. But in our sector, in telecommunications, you need a licence or a registration to work on the customer side, and the other side is run by NBN Co., in this case, or Telstra, Optus or the others. I can only answer it in that way.

Senator LUNDY—I want to get a better understanding of how the industry training council network functions for the area of work you have described? You mentioned 11 different skills councils. I am particularly interested in the relationship between those councils and, for example, the major employers. Has a relationship been established with NBN Co. and, if so, what does it look like?

Ms Cole—The issue about industry skills councils is that, in the main, they have a fairly wide remit and their portfolios are fairly diverse. The primary industry skills council associated with the ICT industry, including telecommunications, is Innovation and Business Skills Australia, or IBSA. They have responsibility for two training packages—and partial responsibility for another one as well—that have an impact and influence on the NBN. These are the IT training package, which is more at the applications end, and the telecommunications training package, which is at the end we are talking about now. The other industry skills Council is EE-Oz, which has coverage of the electrical, electronics, plumbing and other related industries. When you use a qualified electrician in the telecommunications environment, it comes from their training package.

The issue around access to enterprises, and how they are actually supporting enterprises in this regard, falls into a couple of categories. The primary remit of industry skills councils is to develop what I call 'a wholesale product'. Training packages by their very nature are industry benchmarks for the appropriate level of quality outcome on the job for an individual who is trained to that level. They form the wholesale product on which the registered training organisations develop their learning resources, their programs and their courses that target the individual worker. It is often at the registered training organisation level that those enterprise relationships are very strong.

So the industry skills councils in their basic activity provide the benchmarks so that we all know that there is an end outcome and that we are all working to that, with the downstream activity tending to be undertaken predominantly in the states, if you are using public funding

funded through state and territory jurisdictions. In terms of actually training people either on the job or in a chalk and talk classroom environment that is where the rubber hits the road.

That being said, recently the industry skills councils in fact had an increased area of activity associated with driving enterprises into some government training programs, such as the Enterprise Based Productivity Places Program. So they have a facilitation role in that regard. Most of that will have an umbrella or a lid on it, because it tends to be lidded by the amount of money that is in fact available. It is in fact a brokerage or a facilitation role that the industry skills councils can in fact pick up and run with, but it is within the context of the amount of money that is available. Of course, across an area such as IBSA you have six industry portfolios which represent, I would estimate, 20 subindustries, of which telecommunications is one. From that perspective they will have a view, they will have industry experience and expertise reflected in their annual environmental scan about the problems, the difficulties and the possible solutions. Those environmental scans have recently been tabled with Skills Australia and also the National Quality Council. So a lot of work goes on there but, to get the actual doing of the training, you move on a bit from the national body.

Senator LUNDY—Thank you for that answer.

Ms Cole—It was longwinded.

Senator LUNDY—That is exactly what I was looking for. I now have a much better understanding of the relationship. In providing the guidance, the course material, the benchmarking of standards to the various training providers at state level, what sort of cost is associated with companies operating in this sphere to access that training? Depending on industry's needs at any given time, is it a fee-for-service type arrangement or is there a public education provider role through CIT or others in delivering what I presume are modularised training units?

Ms Cole—That is a very interesting question. Unfortunately, the answer is that there are many different delivery modes of operation in the VET system. They range from publicly funded but, unfortunately, some of that of course is filtered by the priorities of the state systems, which may be a little different to some of the national priorities. So sometimes we find that there is not perhaps the amount of training that should, in our view, be being undertaken in certain industries relative to others who may have a better set of data that enables the demonstration of the relevance of training. I think in telecommunications we have suffered somewhat in the last decade or two from not having training that was so obvious, as we might have had when our carriers were in fact undertaking training. Unfortunately, I am old enough to know that back in the days when we did have very significant training infrastructures in organisations such as Telecom Australia we trained for the industry and we would not have had this sort of problem. We have been in a situation where that has not been the case for quite some time. I think we are in catch-up mode.

There is now a different workforce arrangement than there used to be, so your outsourcing and contracting arrangements have changed the dynamics. So you are not now targeting so much the big end of town; you are often targeting myriad one and two men and women vans, if you will. So it is tricky. The point I would make, though, is that the infrastructure is there. The will may not be there—the champion may not be there to in fact facilitate some of the gaps, some of the

areas where there needs to be extra work, extra effort put in and that is the thing that we are quite concerned about. At the moment it is basically letting the market dictate where some training may or may not take place. That is probably a risky strategy when you are heavily reliant on a quality workforce to deliver a quality product in a tight time frame and in a high-tech environment.

Senator LUNDY—Hence, coming back to the evidence we heard earlier as to why CITT is advocating for a minimum training module to be delivered for people working on the NBN, that is essentially your position?

Mr Fothergill—Yes. To put it another way, the existing workforce is drawn from a number of sources, as we have indicated, but a lot of them are from areas where there was historical training, such as Telstra. A lot of those people are ageing et cetera. The rollout requirements of the NBN, once it gets going, will exaggerate every problem we have today. Coming back to that episode that Senator Macdonald referred to earlier which none of us will talk about, the issue that we have is contract management, where people are in ceilings, under houses and doing all sorts of things. Managing the big contractor is one thing, but then the big contractor outsources to small contractors, and that is where the training issues come in, because small contractors quite often do not have the time. They are under pressure and they do not have the time to do the training. So unless there is something in the contract requirement that says that they should have a minimum level or whatever, that is where the problems come in.

At the moment—following on from what Cherry was saying—we do not have a national structure that says, ‘This is a national industry—it always has been—and we need to be able to deploy people across state borders with qualifications that carry across state borders and that are recognised across state borders.’ That is the issue: the NBN will exaggerate what is already a problem.

Senator LUNDY—You have touched on both the supply side and the demand side. You could resolve the demand side by making it a condition of contract. What about the supply side of the training demand if it were suddenly there at the sort of scale we have been discussing today? What capacity does the range of providers operating under the guidance of the national body have to deliver that training in the scale that we are discussing?

Mr Fothergill—We believe they could do it because there are a lot of latent resources around. It is a question of funding because it is a thin market in terms of the public funding areas of the states and territories. The states and territories will get more cooks than they will get technicians. It is a funding issue. So the allocation of funding in the public sector is relatively low, and I would say something like 70 per cent of people would be trained on fee-for-service, either paid for by the contractors or paid for individually, because a lot of the individuals do pay their own way. You are looking at \$1,500 or \$2,000 for a five-day course.

Senator LUNDY—Is that the sort of course that you envisage in your submission—a five-day, \$1500 to \$2,000 course?

Mr Fothergill—You are pinning me down to a bit of detail that I would have to think through. It is horses for courses, as they say.

Senator LUNDY—Some people might need more training than others?

Mr Fothergill—Yes. I would say that the 63,000 that we have would need a relatively small level of training. In Hugh's sector, the ADTIA with the digital area, they have specified some certificate levels that would be industry standards that they require. Looking across to the way in which contracting is now being managed by Telstra, Optus and others, they have already lifted their game to some extent compared to what they were a few years ago. I would say that it would be minimal levels of training. You could pick a figure—if you want to do five days or whatever to upskill in these areas—

Senator LUNDY—I will not pin you down on it. I was just trying to see whether we were talking about a six-month course or whatever.

Mr Fothergill—They would not have to do six months. I guarantee that. Typically, they would do, say, occupational health and safety, which might be only two or three days, because they have already done that but they need specialised occupational health and safety on fibre and power, if you like, to access power lines. This is something that people need to understand: where aerial is going with fibre. It is not electromagnetic. You can run that close to the power lines. There is no induction. To work there, in New South Wales you have to have an elevated work platform license. In Queensland the electricity is different and it has a wider space where people can approach the power.

Senator LUNDY—So there are differences in state regulations?

Mr Fothergill—There are significant differences, but we can get a national training program for organisations such as Hugh represents that will comprehend all of those.

Senator LUNDY—But they would still need to take into account the pre-existing state differences?

Mr Fothergill—Exactly.

Senator LUNDY—Thank you very much. It has been very interesting.

Ms Cole—I will just close on a point there for Kevin. If you looked at some other sources of labour over time—given that we are dealing here with perhaps a fairly middle term and longer term sustainability strategy as well—that is a higher order of training cost. The reason that I mention that is the ageing workforce and the fact that we need to bring new people into the industry who may in fact be quite inexperienced and quite young. So you are tending to move there towards your apprenticeship and traineeship model, which is a higher cost model than top-up training. So, depending on the real need and the sort of strategy over time, your cost structure for training may change.

CHAIR—Mr Ragg, is there anything you want to add to this discussion?

Mr Ragg—The point that I would like to make from ADTIA's perspective—it has been raised—is that we are raising the bar on the training mechanism. We are recognising that people in our industry have largely been semi- or unskilled. Over the last few years, we virtually

rewrote the modules, because the telecommunication industry is not just about the television; it is about all sorts of things. So we went through and rewrote the modules. We have now implemented systems where we are encouraging people to have a minimum of certificate II in the ICT 20508 course, and a minimum of cert III as required, purely to encompass this whole environment of training and education. It is not so much about regulating; it is about educating. There is a real need, particularly across the pay TV industry. They are taking the path that people who work for them must have a minimum of a cert II or cert III. So it is raising the bar. I think overall that it is a very good thing for the country and also the respective industries. However, it is challenging because there is a minimal amount of expertise in training and people to do that training, as Kevin mentioned earlier. But in the industry as a whole, whether it be NBN or television, it is about raising the bar. In there, it raises the awareness and the safety standards and all of that; it is all-encompassing.

CHAIR—Correct me if I am wrong here, but as I understand it the states all have legislation that says you cannot fiddle with electricity unless you are a qualified electrician; that is enforced by penalties and injunctions. Are you suggesting that perhaps the cabling industry should similarly be regulated? Heaven forbid! We have enough regulation in the country already. Do we need more? Do we need to consider that as a safety—

Mr Fothergill—I think the difference is that this has always been a national industry. In the old PMG days—I am unfortunately old enough to remember those days—there were exemptions for people working in the PMG's Department on Commonwealth property on high power. I was a trainee working on 415 volts. In those days, if you were working within that organisation, there were certain exemptions. Some of those carried over to Telecom Australia. What we would like to see is, in either the act or the regulations, something that says, 'This is a national industry and people who are qualified'—you could specify what the requirements are, because they are really quite easy to extract; we could do that in a couple of days—'should be allowed to work on power supply for the purposes of the telecommunications network termination device. So we would like to see that. Otherwise it is not even as simple as going to the eight states and territories. The eight states and territories quite often break up their rules into the power suppliers, so you could be dealing with 24 different organisations. If you talk to people in Optus and Telstra who have been involved in the HFC or pay TV sectors and the rollouts, they will tell you it is an absolute nightmare to deal with states. We have material there already, but what we want is for that to be recognised for the purposes of installing either a power point or a grid feed from the meter to the ONT—nothing else. It is a bit like refrigeration, air conditioning and the like, but they are pretty much screw connect; they are not using a power point.

CHAIR—You said it should be included in the act.

Mr Fothergill—I am not sure which act, because I get different people's advice, but it should be in the overriding act and regulations arising to implement the NBN.

CHAIR—So you are saying it should perhaps be in the NBN legislation.

Mr Fothergill—That would be our view, yes.

CHAIR—Really?

Mr Fothergill—We put that to a number of people, and there are different advisings on these sorts of things, as you well know. But at the moment—

CHAIR—You have put it to government?

Mr Fothergill—Yes. To be honest with you, I have not sat down with Senator Conroy, but we were at a roundtable and we certainly ran it through at that point. But we have put it in written submissions.

CHAIR—There is a quite appropriate sensitivity to these issues in the last 12 months, which perhaps should have a high profile.

Mr Fothergill—If I can just digress for a moment: I was involved in an assessment project—it must have been 10 years ago—where we did comparisons between the telecommunications training. We picked out certificates II, III and IV and compared that with electricals. The electricians, in terms of pure electrical theory, were actually down in comparison to the telecommunications people. The exercise was to try and get our people to qualify as electricians. But you could not do it, because you had to carry a bag for a contractor for 12 months and there were lots of other limitations. So it was nothing to do with theory. In terms of theory our people were way ahead, yet we could not get those people to redeploy as electricians. That is my little spiel.

CHAIR—That was very interesting. Thank you very much for your contribution. You have given us some good things to think about over the next few months. Thank you very much for coming.

Mr Fothergill—Thank you for the opportunity. I appreciate it.

[2.11 pm]

KRISHNAPILLAI, Mr Maha, Director, Corporate and Government Affairs, Optus

SHERIDAN, Mr Andrew, General Manager, Interconnect and Economic Regulation, Optus

CHAIR—Welcome. You have appeared at many Senate hearings over many years. You know all the rules about giving evidence at Senate committee hearings, so I will not go through them. Thank you for coming along. I appreciate that this is a sensitive time for all in the industry, particularly those as closely involved as you are. You have indicated that most of what you have said in your submission is already on the public record, but perhaps not in the same form. As you know, the committee is interested in updates and in particular your views on the exposure draft as part of the ongoing process of getting it right. You have addressed that in your submission. Thank you very much for your submission. I invite you to make an opening statement, and then we will have some questions.

Mr Krishnapillai—Thank you. There are certainly a few things we would like to get on the record about this. As you are aware, Optus has been a longstanding supporter of the government's planned National Broadband Network. We believe the NBN has the potential to positively reshape the fixed line telecommunications sector in this country while delivering benefits to all Australian consumers and businesses. This, no doubt, will not be a surprise. However, we have always made it very clear that, for the NBN to deliver on its promised benefits, it needs to be operated as a structurally separated, wholesale-only network operated on genuine open access terms. This was the vision announced by the Prime Minister in April last year, when he announced the government's planned national fibre-to-the-home network.

The draft bills—the NBN communications bill and the NBN access bill—among other things, set out the proposed governance arrangements that will apply to NBN Co. These bills have given us real cause for concern as, in our view, they signal a significant winding back of the government's vision of a genuine structurally separated, wholesale-only network operating on genuine open access terms. Optus and, I believe, the broader communications industry have a number of concerns with the provisions set out in the draft bills, particularly the significant scope and discretion they give to NBN Co. to set up as a retail competitor. The NBN Co. bill establishes the wholesale only status of NBN Co. by providing that it can only provide services to end users. This is commendable.

However, it also provides the minister with discretionary powers to issue exemption orders for the wholesale only status of NBN Co. This would allow NBN Co. to operate as a retail service provider of telecommunications or content services to, for example, government agencies. This is a real threat to Optus and, we believe, the sector and other carriers who have considerable government contracts. In addition there is nothing in the draft bills to stop NBN Co. taking a controlling stake in a retail communications company and indeed then entering retail markets. The fact that the bill contemplates a retail role for NBN Co. is a significant and deeply worrying step back from the government's clear commitment to operate the NBN Co. as a wholesale only provider.

Optus also has concerns over arrangements dealing with private ownership and control of NBN Co. which we believe are inadequately specified. This should not be left to be determined by the minister or any future ministers at a later date and needs to be written up in black and white in legislation today. It is critical that no retail communications provider can gain an effectively controlling stake in NBN Co. as this would significantly compromise the reform credentials of the NBN. We do not want to replace one monopolist, Telstra, with an even more powerful, better resourced and better backed monopolist.

Secondly, the equivalence arrangements are very loosely defined and are well below the standard Optus and others have argued should apply to NBN Co. Taking a worst possible scenario approach Telstra could potentially negotiate special prices in return for an agreement to migrate its eight million customers to the NBN. The minister may argue that any carrier in like circumstances would be able to obtain the same discount but clearly like circumstances do not exist in this situation. The reality is that no other carrier has eight million customers to bring across and so, in effect, no other carrier would qualify for those same terms. Again, such an outcome would clearly compromise the competition reform credentials of the NBN.

We also believe that many important aspects have been left out of the NBN access bill an obvious example being how prices will be set for access services and how they will be determined and approved. This should not be left to be determined through a special access undertaking. The government should take the opportunity presented by these bills to settle these important issues up front. At least as a minimum they should set out the appropriate access pricing principles to be applied.

Optus has significant concerns with the draft bills in their current form and as such we have made a number of recommendations to the minister. These include removing the minister's discretion in relation to exemptions to the wholesale only status of NBN Co., restricting NBN Co. to supplying services to carriers only, restricting NBN Co. to supplying services at layer 2 and below, subjecting any entity in which NBN Co. has a controlling stake to the proposed access and governance arrangements, enforcing equity caps so that no retail telecommunications provider can take more than a 20 per cent stake in NBN Co., introducing separation principles to ensure dealings between NBN Co. and any retail telecommunications provider holding an equity stake in NBN Co. are conducted on genuine arm's-length terms and access prices being determined and approved by the ACCC.

As things stand we remain deeply concerned that these bills signal a significant step back in the government's clear commitment to operate NBN Co. as a wholesale only provider. Minister Conroy, to his great credit, has outlined these proposed arrangements in exposure draft form which is something that I am certainly led to believe he did not have to do. He is also on record as stating his intention to use this time for genuine consultation. Discussions with his office indicate that they are genuinely open minded about changes to these exposure draft bills. I sincerely hope that he will genuinely consider the amendments put forward by Optus, and other players in the industry I might add, and take them on board. Optus supports the government's planned national broadband network. We believe it can deliver transformative changes to our industry, be an enabler of innovation and drive future productivity growth. It can benefit all Australian consumers and businesses, but to realise that vision it must stay true to the initial outlined four key principles.

Firstly, NBN Co. must operate as a structurally separated, wholesale only operator. Secondly, access to the NBN must be provided on genuinely equal terms. Thirdly, the ACCC must have strong oversight powers to regulate the NBN. Fourthly, whilst it is important that the NBN carries Telstra's traffic to ensure its viability, any deal between Telstra and NBN Co. in terms of migration must be transparent, must represent demonstrably fair value for taxpayers, must be subject to independent assessment by the ACCC and/or parliament and, importantly, give Telstra no systemic and future advantage in delivering services on the NBN. It must also offer the same terms to non-Telstra participants. We look forward to working with policymakers to ensure that the bills fully deliver against these important, key principles. Thank you.

CHAIR—Thank you very much. From what you just said at the end, are you suggesting that—and this is hypothetical, of course—if Telstra were offered some special access deal as an incentive to transfer the copper network to them, NBN Co. should be required to offer the same sort of deal to other players, particularly Optus and iiNet?

Mr Krishnapillai—Interestingly, being the second largest player in the sector, we are not actually saying that there should be those special requirements. We would be a beneficiary in many ways by being the second largest volume player in the sector. We are saying there should be open, transparent and genuine access principles. We are not looking for special pleading for ourselves or Telstra or anyone. The important point we are trying to make with that last issue is that we do not want to have Telstra with a slush fund, a war chest of money, that can distort retail broadband competition in the future. If a chunk of money is parlayed across to Telstra as the ransom price, then that should not be allowed to be used to distort retail competition.

CHAIR—Again, I very much appreciate you coming along. The idea was for this committee, in its closing months, to provide an opportunity for public discussion on the matters you have raised in your submission to the government. You would be aware that many commentators have suggested that the way the exposure draft is written is simply not intended to be the final bill that is put to parliament, perhaps because the minister knows that it would be unlikely that the Senate would adopt a bill that was so different from what was originally announced. I cannot speak for the Senate there, but commentators are saying, 'That was only put in the draft bill to be a bit of a stick to Telstra, to make them toe the line and come to some acceptable agreement with the government.' What would you say to that?

Mr Krishnapillai—The first observation would be that there seem to be an awful lot of people who have inside knowledge of these negotiations.

Senator LUNDY—Conspiracy theorists abound.

Mr Krishnapillai—That is exactly right. If you believe everything you hear around the place, you would be in a bit of trouble because there are quite significant gaps in people's expectations. The reality is that the exposure draft, to the minister's credit, is an exposure draft. I think that is very important. There are a range of ways to deal with these issues. We have put forward, for example, through the original fibre-to-the-node process, what we think are the rules that should apply. We are quite happy to work with the government and the minister to make sure that the final bill reflects those key principles.

CHAIR—You made comments about the future, and particularly NBN Co. being able to take over a retailer. Should the bill be drawn in such a way as does not permit NBN Co. to ever be a takeover merchant in any capacity? Why is it necessary for that to be in the bill? Do you have a view on that?

Mr Krishnapillai—I do. In our view, the first thing we need to be really careful of is that we recognise that the flaws in regulation over the last decade do relate to industry structure. To the minister and the government's credit, that industry structure can be resolved when if we move to a world where NBN Co. is wholesale only and has those principles. The flipside to that is that as we move in transition to that world, we certainly understand that the minister and regulators need some flexibility in how they deal with those sorts of issues. So there may be some requirement for flexibility in those rules.

I guess what we are saying, though, is that there are some key ones around the ability for an existing retail company to parlay its dominance today into some sort of dominance in the future, which is why we have said all the way through that we think a 20 per cent figure—a cap, if you like—is very important. We do not want to have any structural distortion, the way we have today, to move across into the world of the future.

CHAIR—Okay. I might come back to you later with some questions, but now we will go to Senator Lundy and then to Senator Fisher.

Senator LUNDY—I note that you have made it very clear that you appreciate an exposure draft because of the opportunity to make your comments and express your views, but how important is it to get this legislation in place quickly and get these things resolved—I suppose, hypothetically, assuming that you will get your major concerns addressed, as that is your effort? How important is it to get this legislation in place?

Mr Krishnapillai—For people like me, as you are aware, who have been involved in this sector for many, many years, this is the culmination of 15-plus years of frustration. I remember dealing with the former minister, Richard Alston, on this very issue of structural separation in 1998. A lot of the issues that have bedevilled our industry have been hanging around for 10 or 15 years. The first point I would make, then, is that I believe very passionately and quite strongly that we have been held back as an industry—and as a result held back our economy—through setting up, to be fair, Telstra's ability to stall competition in this industry. I am not blaming Telstra, certainly not, but I think the regulations almost inevitably led to that outcome.

So, to answer your question, I think it is long past the time for debating whether or not we need to introduce structural reform in the sector. We applauded the government's vision in terms of a national broadband network, and it does leapfrog us to a future place that I think is quite crucial, but we must get the legislation in place and working as soon as we possibly can. Clearly, we were very disappointed that the telco reform legislation, which should have addressed the historical issues, if you like, around structural separation and powers for the ACCC today, was not passed by the Senate. We clearly were very strongly supportive of the fact that that is needed to address the issues of today. But, just as importantly, for the issues of the future around NBN, we need to get that legislation passed quickly.

Senator LUNDY—Thank you very much. I would like to ask you about Optus's view of the NBN Co. plan, in their industrial consultation paper, to offer only wholesale layer-2 bitstream services. What is Optus's view with respect to the distinction between layer 2 services provided to ISPs operating at a retail level, such as Optus, and the sorts of layer 2 services that could be offered, for example, to a government agency? That is apropos your concern about this distinction between what constitutes wholesale and what is not. Could you shed a little more light on Optus's specific concerns, including the significance of the difference between what we characterise as services to retail customers and the sorts of layer 2 services that could be provided to a government department.

Mr Krishnapillai—Our view is that an NBN company should be offering those sorts of basic carriage services, in effect, at absolutely the lowest level possible. We are certainly of the view that NBN Co. should not be offering retail services, nor should they be offering even layer 3 type services, which are obviously a layer down. The view we have had is that the basic carriage should be run by NBN Co.—the linkage, if you like; the last mile access et cetera—but any IT and other applications infrastructure that enables a company like ours or anyone else to differentiate on terms of service, quality and innovation should be in the hands of the retail sector. So we are very strongly of the view that layer 3 and above should be done completely by the retail sector, which is really the organisations like us who have invested billions of dollars for many, many years in IT systems et cetera to innovate. That is where you get the real differentiation. Basic layer 2 services should be done at a basic level by NBN Co.

Now, there is an argument that has been put to us that some of those layer 2 services could be bought by others, such as government departments. I guess we are of the view that that is a very difficult thing to police, enforce and quarantine, and we take the view that it would be far preferable to have a very clear delineation—that the definition of the service is layer 2 and below, and only NBN Co. can offer those services; and layer 3 and above is retail, and only telecommunications or other companies can offer those services.

Senator LUNDY—Given that has been expressed by NBN Co. in its industry consultation paper, your submission asserts that that should also be firmly reflected in the bill—is that correct?

Mr Krishnapillai—Correct. We have certainly worked with NBN Co. for quite some time around how those product definitions are constructed and how Interconnect and IT systems work with each other and work quite comfortably. It is heading in a very good direction in terms of NBN Co. I guess the issue is that we would like that locked in stone with legislation rather than being an open-ended agreement, if you like, with NBN Co. that could potentially change in the future.

Senator LUNDY—You mentioned the principle of equivalence with respect to wholesale access or wholesale access pricing. From Optus's perspective you have expressed a very strong view about this. What is it in the bill specifically that gives you concern that the principle of equivalence is not firmly entrenched?

Mr Krishnapillai—I think the definitions are not as strong or as clear as we would like. Rather than some of these things being specified at a later date, we would like the legislation to lock them down. We fully appreciate that there is some requirement to have some flexibility and

we do not want to lock out NBN Co. from its ability to react to market changes and custom fit negotiations with RSPs or telecommunications companies. But there should be a bedrock standard, we think, in terms of equivalence. I do not know whether there is a particular thing you would like to add on, Andrew—

Senator FISHER—And you find parameters of flexibility in the legislation—is that a fair assessment?

Mr Krishnapillai—As an example, the principle should be that non-equivalence should only apply where there is a demonstrable ability to get a cost saving. Much like any wholesale company, if you can say that as a buyer of a service, you can give the wholesale seller a demonstrable cost saving, then there is a negotiation there that should be able to apply. But that should be quite clearly delineated, and we think it is quite dangerous if not clearly delineated.

Mr Sheridan—I think that is right. I think that in terms of how the bill is written, the rules around equivalence are not sufficiently specific. They would enable, for example, a supplier with a very significant volume of services to get a cost discount. But that would not necessarily be referable to any change in the cost of supply. We say that you should put in an equivalent which allows for differential pricing, for example, which is transparent and clearly benchmarked against some demonstrable changes in the cost of supply.

Mr Krishnapillai—That is the other reason we have said that the undertaking should not just be discussed between NBN Co. and the ACCC at a later date. Put some of those Ts and Cs in the legislation. The problem we have today is that we have had the charade of Telstra negotiating undertakings with the ACCC for 13 years. They are yet to have one accepted and, clearly, Telstra regards that as the ACCC's fault. But we know where the litigious strategy has taken Telstra: they have very successfully stalled this industry. Clearly, we think that we should look at the history of how undertakings have failed and the problems that have come about from being fairly loose in terms definition. This has meant that we give an incumbent or a monopolist or somebody who has no real incentive to conclude an arrangement all the incentive to litigate this thing to death. We are not saying that is the case with NBN Co. today; what we are saying is that we would like to lock away some of the potential for that to occur in the future.

Senator LUNDY—One the provisions contained in the exposure draft relates to publishing variations to standard access agreements on the ACCC's website. What is your view of that particular provision? Do you think it will help the problem you describe?

Mr Krishnapillai—Certainly transparency, and improved transparency is a very important part of that. Did you want to comment on that, Andrew?

Mr Sheridan—As my colleague said, we support the principle of transparency. We have suggested some recommended changes. It does not quite go far enough. Perhaps our concern is that the level of exposure does not necessarily give sufficient detail for someone to actually understand what the differential terms of supply are. So we have suggested that the full agreement should be published. I think we are also a little bit concerned that the transparency comes after the event—so if equivalence is being breached, what is the remedy?

Senator LUNDY—So you might know about it but it is already being done?

Mr Sheridan—It is already been done.

Senator LUNDY—Thank you for that. Finally, under the current legislation is there anything that you are aware of that prevents carriers or carriage service providers from selling directly to end users—just going back to the previous discussion about layer 2 and your concern about NBN Co. operating at a retail level?

Mr Sheridan—Can I just add a comment on that issue. I guess our philosophical perspective is that NBN Co. should operate in areas where there is a market failure. We would perceive that to be at layer 2 and below. We argue that there is a prospectively highly contestable market at layer 3 and above and therefore that is why NBN Co. probably should be precluded from operating above layer 2, because you can get competition in that sector. If, however, NBN Co. is able to go up the value chain, then perhaps that competition will not eventuate.

Senator LUNDY—Thank you. That is all the questions I have.

Senator FISHER—Mr Krishnapillai, around the structural separation context, if you are accurate—and I am sure you are, given your 15 years or so of experience—

Mr Krishnapillai—Twenty-plus.

Senator FISHER—I got it wrong, did I?

Mr Krishnapillai—It is actually 20-plus years, but that's all right.

Senator FISHER—That is very tragic!

Mr Krishnapillai—It is, isn't it!

Senator FISHER—If the need for structural separation, in your words, is long past debating, then how have we got to this? Yes, we have before us exposure draft legislation—and you suggest that the minister has indicated his door is open for consultation—but how have we got to the need for even that if you are correct in saying that we are long past debating the need for structural separation?

Mr Krishnapillai—Clearly it has taken a number of years to get to the point where we have actually, first of all, got recognition that structural separation in the existing industry or the structure of the industry needs to be addressed. As I said before, we are certainly strongly supportive of the previous legislation—not yet passed by parliament—on structural separation and greater powers for the ACCC. That has been the culmination of many years of work by Optus and various others that we need to resolve the structural issues today. In terms of the future in terms of the NBN, the only comment we would make is that the principles that were outlined in April last year were very clear. They were about wholesale only, structurally separated, with equivalence of access. The balancing act to that clearly is some flexibility required in this as this process rolls out and evolves. We certainly understand that. What we are saying very clearly is that our view is that the time to be flexible on some of those issues is starting to come to an end and we should actually pass legislation with a wholesale-only, structurally separated NBN Co. at its centre.

Mr Sheridan—In many respects, we are arguing about the detail of the legislation now. The principle is embedded in the legislation of wholesale only. As my colleague said, there is some flexibility built in.

Senator FISHER—The detail can undo the principle pretty easily.

Mr Sheridan—Exactly. Our experience is that flexibility can often be used in such a way that it has unforeseen consequences and can undermine the broad principle or objective you are trying to achieve.

Senator FISHER—Given all that, are you surprised that it has got to this? Did you see this coming?

Mr Krishnapillai—We have certainly said all the way through that we are going to be working with government, and we are very keen to work with government—

Senator FISHER—And you have been.

Mr Krishnapillai—And the principle has been very important. I would not say we are surprised at anything in this sector in the last few years. We are still very supportive of the principle of a National Broadband Network. The detail will be important to be worked through, and I guess that is the key principle we have been talking about today.

Senator FISHER—There was some 15 months for the first round of the National Broadband Network to be contemplated and it is some 12 months now since the \$43 billion rollout that we are now contemplating. As you say, the key principles supposedly were laid down some months ago. With Optus as a key stakeholder, how do you think it is that we get to the point where the exposure draft legislation essentially allows the flexibility, the detail of the flexibility provisions, to undo the supposed principle of structural separation?

Mr Krishnapillai—I certainly would not want to overplay this, because the principles are actually quite clear. As I said in the opening statement, it does see it as wholesale only, structurally separated, with equivalence. So the principles are actually very clear and we support them very strongly. We are arguing about, I guess, the ability for a future NBN Co. or a future Telstra ownership in NBN Co. to wriggle out of those rules.

Senator FISHER—To go back to the future, as it were.

Mr Krishnapillai—Correct. So we are suggesting that the lesson we have learnt in 20-odd years working in this sector and Optus' history throughout that process is that by having light-handed regulation or grey-letter regulation since 1997, all that has enabled Telstra particularly to do is litigate the sector to death. We do not want that to happen again.

Senator FISHER—Thank you. Continuing with that theme but focussing on your open access concerns and your concerns, if I have it correctly, that there should be more circumspection in the legislation itself, rather than it being left to an undertaking to be negotiated at some future point between ACCC and Telstra, I hear your concerns in that respect. Would your concerns be dealt with in any way—because it may be difficult to define the parameters of

the flexibility for the access—by, rather than putting further restrictions in the bill, you supplant Optus and other key stakeholders as necessary parties to the open access agreement? Would that work at all or is it just plain dumb? I am trying to see whether there are any other scenarios which might work.

Mr Krishnapillai—Any of the scenarios that involve too much guess work or ability by Telstra to, as we say, work their way around, because it is not clearly defined, will lead to the same problems we have today. That certainly is my view. We think there should be a very clear, unambiguous and central role for the ACCC to set pricing and pricing principles in an undertaking and that then the NBN Co. and Telstra can go away and fill in the gaps.

Senator FISHER—You are saying the legislation should set out the principles upon which, for example, pricing must be based by the ACCC.

Mr Krishnapillai—Yes, pricing principles, absolutely.

Mr Sheridan—It is important to note that that would not necessarily mean a lot more additional provisions in the bill. We are not looking for the legislation to set the prices; it is just a pricing principle or a rule and the parameters.

Senator FISHER—Correct, and the parameters.

Mr Sheridan—There is an alternative as well, which could be to require the ACCC up front to set what the pricing principle should be. Then the undertaking is put forward and it has to be consistent with that pricing principle. At the moment we have things the other way around—the undertaking will be put forward by NBN Co., the ACCC will examine it and then perhaps think about a pricing principle. I think at the moment we have things the wrong way around.

Senator FISHER—And we have taken so long to get even to here.

Mr Sheridan—But we are at a detailed level of legislation, very detailed and complex provisions.

Senator FISHER—Clarification, Mr Sheridan, in terms of the degree to which Optus wants the legislation to go or the degree to which the legislation already proposes to go?

Mr Sheridan—What I am trying to articulate in a clumsy way is that there is a willingness in terms of what the objectives are and what is trying to be achieved here. It is just how to implement that in the black-letter of the law.

Mr Krishnapillai—I agree.

Senator FISHER—The fabled implementation study, do you need to see it? Does it make any difference to Optus?

Mr Krishnapillai—As a company that builds networks and has done so for 20 years, we have done a lot of work internally around how the costs, the benefits and the applications that will flow from a national broadband network will flow out and we are absolutely confident that, if

the principles as we have articulated them are followed through, we will get a strongly competitive national broadband network which will be commercially viable. The important thing from our point of view in terms of the implementation study is that we are very confident that that assessment will lead to the same conclusion. So we probably do not really need to see all of that detail.

Senator FISHER—On what basis are you confident of that?

Mr Krishnapillai—As I said, on the basis that we are a company that has built networks through many years and put forward, through the original NBN proposal, a detailed proposal around fibre to the node. We costed out the build of that network and the carrying capacity required and the retail and wholesale prices. We are confident that the implementation study will show the same sorts of things. Seeing as they have consulted with the industry—and we have worked with them pretty closely over quite some time—I would be surprised if the implementation study did not come up with the same sort of conclusion.

Senator FISHER—If you are able to predict that, why do you reckon the minister is hanging off on releasing the implementation study?

Mr Krishnapillai—I do not know. That is for the minister to answer, not me. But I can certainly add one comment. We have supplied quite a deal of commercially sensitive information in the last 12 or 18 months. We would certainly be reluctant for our intellectual property to simply be given away through that process. We are quite happy for that work to be used by McKinsey and others as conclusions, but we want to be very careful about commercially confidential information. As I said earlier, we have spent a lot of money, over many decades, building our experience of networks and we do not really want to give that away.

Senator FISHER—Of course—that is understood. Are you suggesting the minister is sitting on the study because he is blacking out the commercial-in-confidence aspects of it?

Mr Krishnapillai—That is for the minister to answer, not me. All I am saying is that, from our point of view, there are clearly some commercially confidential areas that we would be very wary about releasing publicly.

Senator FISHER—Doesn't Optus need to see the implementation study before you can have any genuine and meaningful consultation with the minister on, for example, the exposure drafts of the legislation that is before us?

Mr Krishnapillai—We have certainly seen what the inputs to the study are. Other players have put their inputs into the study, so we would be fairly confident that the study reflects those inputs. I do not necessarily think we need to see the study itself.

Senator FISHER—That is a lot of confidence. 'Consultation with' does not necessarily mean 'agreement with', as you would know.

Mr Krishnapillai—True.

Senator FISHER—Without violating any confidences, can you give the committee any further information as to the basis on which you are able to express that confidence?

Mr Krishnapillai—As said, we are confident it is based on the information that has been put in by us and other players. Clearly our view has been that it would clarify matters if as much transparency and information as is available could be considered as much as possible.

Senator FISHER—Did you see the information that went through from ‘other players’, to use your words? Surely they, like you, are pretty protective of their commercial-in-confidence information, so how do you know? You might be the odd ones out.

Mr Krishnapillai—We could well be.

Senator FISHER—As long as you are not ‘left right out’. Sorry!

Mr Krishnapillai—Exactly! It would be difficult to argue with some of the technical and architecture principles behind it. When you think about how the NBN is to be built, it comes down to quite a clear number of variables. These include how much it costs for duct access, how much the fibre costs, how much it costs to transfer customers across to that network, how much the wholesale cost is and, therefore, how much the retail pricing is. We have modelled those sorts of things and we know that other companies have done similar exercises. I certainly do not know what other companies have said or done as part that process, but we are confident that a lot of the technical elements would be fairly common.

Senator FISHER—Let us hope so. But, in the context of structural separation, you state that the debate has long since been had and decided, yet there is exposure draft legislation that potentially detracts from that principle. I am interested in your ability to express confidence that the implementation starting world reflect the core principles that, at very least, Optus has put in place when arguably the exposure draft legislation does not reflect the key principles that were reiterated as recently as a few months ago on, for example, structural separation. I am interested in anything else you can give us as the basis for your confidence.

Mr Krishnapillai—You are clearly right. We have not seen the detail of the study, so we certainly should not comment on it. As to whether the minister releases it, that is clearly a question for him.

Senator FISHER—I have one further question around that. Are you reassured by the minister’s indication that he will release the implementation study before the budget session? I think that is pretty much what he said. Are you reassured by that in any way?

Mr Krishnapillai—Yes.

Senator FISHER—Do you have any insights? Can you let us know when? Come on, you are well connected!

Mr Krishnapillai—It is not for me to comment on whether that would be the right thing. That is up to the minister.

Senator FISHER—Thank you.

CHAIR—Mr Krishnapillai, we are reading in the papers every day that Telstra is dealing with NBN Co. about taking over some of their network. Are you having the same discussions with NBN Co.? I am not going to ask you for the detail, but are you having discussions about folding any part of your network in with NBN?

Mr Krishnapillai—We have said for quite some time that one of the reasons we engaged in the original round of NBN Co. was to set a benchmark. We wanted to show that there was a benchmark pricing, technical and commercial construct that would make sense in terms of rolling out a national broadband network, which is why we put the original bid in and certainly why we supported the government's then move to amplify that into a full fibre-to-the-home network. Therefore, in terms of our engagement with NBN Co., we have also said all the way through that we want to make sure that we are involved in product constructs, in how IT systems work together and in setting a benchmark for what pricing is required for NBN Co. to build its fibre-to-the-home network—for example, what pricing and other mechanisms are needed to put fibre into ducts; what head start they might get in terms of using a particular customer base; what sort of technology you could move from, say, an HFC network into a full fibre-to-the-premises network and other options like that. So we have certainly discussed a range of things with NBN Co. to help them benchmark what we think is an appropriate stepping-off point for NBN Co.

CHAIR—You may have just answered this, but I am not quite sure. There are comments, again in the media, that NBN Co. is talking about taking over, at a price, part of Telstra's existing network. Are you having the same discussions—without disclosing the details, of course?

Mr Krishnapillai—Again, just for clarity on this, my personal view is that NBN Co. should not be taking over anyone's network per se. It probably needs to do three things. First of all, it needs to get access to ducts in order to roll out fibre. Secondly, it needs to make sure it has sufficient backhaul capacity, through either lease or purchase, to link those together. Thirdly, to make the network viable, in our assessment about 60 per cent of broadband traffic needs to go across that base network, and to do that you need to make sure you move or transit customer bases across to the NBN Co. Now, that could be Telstra, it could be us or it could be a range of other players.

CHAIR—So you are, as Telstra is reported to be doing, talking about those things with monetary compensation?

Mr Krishnapillai—Maybe I could make an observation. I think sometimes the speculation around the Telstra-NBN Co. discussions gets a bit confused, because, certainly from my point of view, the thing that NBN Co. wants to buy is not necessarily the same thing that Telstra wants to sell. NBN Co. wants to buy duct access and a customer base. Telstra has a copper network that over the next decade or so will rapidly start to deteriorate in terms of its value and that it wants to bundle together and offload with those first two things. So the buying and selling are not necessarily part of the same equation. So in terms of answering your question, Senator, I do not think NBN Co. should be buying a copper network. That is not what NBN Co. has been set up to do. NBN Co. is setting up or building a fibre network and it needs to buy the elements of the network are required to build a fibre network.

CHAIR—But Telstra has a fibre network, doesn't it?

Mr Krishnapillai—As do we, as do others—correct.

CHAIR—Well, wouldn't it be sensible for NBN Co. to buy Telstra's fibre network or buy your fibre network so there are not three networks carrying the same traffic?

Mr Krishnapillai—I think there are two components of that. First of all, we mentioned the layer 2, layer 3 debate. There are advantages in having some fibre ourselves, and other players will continue to have that in the future. That is the first point. The second point is that, when you say it would make sense to do that, it only makes sense if the price is right and, clearly, if Telstra is going to choose to charge a price that is too high then we certainly do not think NBN Co. should be buying that particular network. Again, that is why we have said we want to benchmark the pricing for a fibre network.

CHAIR—If, hypothetically, NBN Co. did buy that from Telstra at a price, would you feel that you should be paid the same price or a proportional price, depending on what you might have available to make a national broadband network better, and at a cost-effective level?

Mr Krishnapillai—I am not sure we could both be paid for the same type of access. If there is competitive fibre—

CHAIR—Proportionately: if they have got 100 kilometres and you have got 50 and they got \$10, you should get \$5.

Mr Krishnapillai—I do not think that is the way it would work. Certainly, from my point of view, it should be a case of, 'What does NBN Co actually need to buy?' It needs to buy duct access. It needs to build fibre to the premises in those areas where there is no other fibre to the premises. Then it needs to either buy or build—

CHAIR—But where there is fibre—

Mr Sheridan—I think we are perhaps missing the point. There is not an extensive amount of fibre to the mass market in Australia. Most of the fibre networks that are currently deployed to homes and premises are actually to business premises. So the HFC networks of Optus and Telstra are only partial fibre networks. I think we are perhaps slightly off track with the questioning, because there is not a capability to buy three fibre networks and for NBN Co. to actually achieve its objective. Really what it is looking to do is to buy access to Telstra's duct network, of which there is only one in the country.

CHAIR—As a commercial operation with connections worldwide you must be planning towards the day when you can access the NBN network.

Mr Sheridan—Yes.

CHAIR—Are you now talking to NBN Co. about the price you will have to pay for access to their wholesale network?

Mr Krishnapillai—I think that, if we get the order right in terms of how we do this with NBN Co., the price will depend on what we are buying, for a start—in terms of layer 2, layer 3 et cetera, as we were saying beforehand. So we need to specify things like products and undertakings first before we can even discuss price. So the short answer is that we think it is premature to be discussing price with NBN Co. at this stage.

CHAIR—For your forward planning as a worldwide commercial operation, you must be looking well into the future. When do you expect that you will be hooking into NBN?

Mr Krishnapillai—That is clearly up to NBN Co. over the next five to eight years.

CHAIR—Do you mean to say that you are at this stage of the game and you do not have any forward projections on when you are going to be using their network?

Mr Sheridan—We do have forward projections, but they are commercial-in-confidence.

CHAIR—Okay. That is a fair enough answer.

Mr Krishnapillai—We have announced, by the way, an upgrade of our HFC network to DOCSIS 3.0 standard, which is 100-meg standard. So it is a hybrid fibre coaxial network. There are a range of things we will be doing over the next few years. The key for us is a transition plan that involves the industry and us in the right sort of way over the next few years.

CHAIR—In fact, you anticipated my next question. If I come to Optus today and money is not a problem to me, I can get a 100-megabit-per-second service to my home. Assuming I live in a regional centre in a reasonably accessible area, what is your package? What would it cost me a month?

Mr Krishnapillai—Certainly HFC is not available in regional areas. It is just some metropolitan areas of Melbourne and Sydney. That is the first point. The second point is that it is a hybrid fibre coaxial network, so it does not have the same flexibility as a pure fibre network would have. So for regional centres the answer is no.

CHAIR—I live near Townsville. Say I lived in Townsville. I could not get 100 megabits from you?

Mr Krishnapillai—Correct.

CHAIR—If I lived in Sydney, I could. To my residence?

Mr Krishnapillai—Yes, there is some availability. It is in small numbers at this stage, and we are only just announcing the upgrade.

CHAIR—What would it cost me?

Mr Sheridan—I think you touted 100 megabits. That is not there yet. It will be there in the future when we upgrade. So there is no pricing package for that construct at the moment.

CHAIR—But iiNet told me that they could give me a package of 100 megabits if money were not a—

Mr Krishnapillai—If money were not an object, I am sure we could all give you a package—even Telstra, I suspect.

Senator LUNDY—To clarify, my interpretation was that it was around 20 megabits, not 100, that they could deliver on the copper network.

CHAIR—Twenty to 25.

Senator LUNDY—But they could not guarantee it either, because it depended on how the network—

CHAIR—No, but they are selling the packages.

Mr Krishnapillai—Certainly not 100 meg in my experience. I will take that on notice, but there is certainly no—

CHAIR—I thought Telstra currently have 100 meg if I am prepared to pay.

Mr Sheridan—In the market today, most of the packages are around 20 megabits per second. There is an upgrade path on the cable networks, using DOCSIS 3.0, to 100 megabits per second. I think Telstra has a few services available in Melbourne. Optus is doing an upgrade later this year. So currently, I think, for most people in metropolitan Australia you can get 20 megabits per second. I think the retail path—

Senator LUNDY—It is up to that, but not all the time.

Mr Sheridan—Not all the time; it is up to that.

Mr Krishnapillai—The beauty of fibre-to-the-premises is that you can get guaranteed 100-plus meg rates. The only way you can get that today is with fibre connections in CBD areas, generally, and that is generally for businesses.

CHAIR—I think I can get that in Tasmania now for \$159 per month.

Senator LUNDY—Is that at Point Cook?

CHAIR—At Point Cook I can get 100 megabits for \$159 per month today.

Senator LUNDY—It is the fibre-to-the-home rollout, though, that iiNet are involved in. That was the point of—

Mr Sheridan—And that is the trial—

CHAIR—Is there anywhere in Australia that you can provide a similar service and, if so, at what price?

Mr Sheridan—I think what we are saying is that we will be able to provide 100 megabits of service shortly—

CHAIR—But not today?

Mr Sheridan—but not today. Therefore, we do not have pricing packages. Point Cook, or Mount Cook, is a trial. It is to a limited number of residents, something like 3,000. I think iiNet may be one of the participants in the trial.

Senator LUNDY—That is right.

Mr Sheridan—It sounds like an extraordinarily expensive service, though, to me.

CHAIR—Extraordinarily expensive?

Mr Sheridan—Yes. I should add there, though, that it is actually a Telstra FTTP trial.

Senator LUNDY—I think there are a number of trials. I urge caution on behalf of the chair to explore these areas in the absence of all of the facts, because already it has been important to clarify some of the information that you are discussing. I think it would be smart to refer to the evidence received by iiNet, and perhaps we as a committee could ask for information about that fibre-to-the-home trial and the ISPs and costings of participation in it rather than speculate about it now. We are already 15 minutes behind time.

CHAIR—That is a very good political point, Senator.

Senator LUNDY—Not really.

CHAIR—But yobbo voters like me and consumers like me are interested in media reports that, using NBN, you people as retailers could deliver 100 megabits per second service at about \$200 a month, whereas this newspaper article that I am going on, which I think is based on fact and other argument, says that you can already get there at somewhere around \$100 per month.

Mr Krishnapillai—I think we should be a little bit careful. There has been a lot of speculation about retail pricing for 100 meg services, certainly most of which I think is ill-informed speculation. I do not think that a lot of services are actually available at that rate. The second point is that we do offer 100 meg services, but it is for direct fibre connections. For example, our business customers, depending on the level of service they want overlaid with that, can buy—and pricing depends on a whole variety of factors—that today.

CHAIR—I have been quoting from Jennifer Hewett in *The Australian* of last weekend, 10 and 11 April. Jennifer Hewett is an informed commentator, I would have to say. She writes quite a bit on this. I was trying to get a comment from you—and I do not want to get into opinion and certainly would not want to involve you in any politics or political arguments—as I am concerned that, having spent \$43 billion on a network and having assured the Australian people

that this will be a commercial operation getting a commercial return on the \$43 billion, what the government will then have to charge you guys as retailers to get that commercial rate of return will not enable you to deliver me a package for under \$200 a month.

Mr Krishnapillai—As I said beforehand, when we did the modelling for the original fibre-to-the-node process, we went through all of the variables in terms of what those prices would be. So we think that \$200 price would probably be an average; it may even be a maximum, because there is a variety of other price points, depending on other issues, and it will depend on how much it cost to build in the first place. We think \$43 billion is very much the absolute upper end. It should be significantly lower than that, particularly if duct access is available at a reasonable price and Telstra does not hold the whole country to ransom in the future on duct access, and particularly based on how much you pay for moving across traffic to that new network. There are a whole variety of variables which will lead to the end price of a wholesale price.

We think that about 60 per cent of broadband traffic being used on the NBN, with a \$30-plus billion bill, will be a commercially viable proposition. We have said that for some time. We have said that publicly. That is based on usage today, how people use broadband today. The other thing that none of us ever seem to grasp is that in the next five to 10 years—we believe strongly—there will be radically different business models, based on much higher usage of broadband. It is a bit like the analogy of building an electricity network to replace a single globe in the toilet. You would not do it. The reality is that the electricity networks evolved and people started using them for all sorts of other applications.

CHAIR—There is also comment that, by the time this is built, cabling will be a thing of the past and there will be all new technologies—

Mr Krishnapillai—I have yet to see any informed comment on that from anyone who actually works in the industry.

CHAIR—You do not believe it.

Mr Krishnapillai—Categorically no. Fibre has been a technology that has been in place for the last 20 years. In the same way that copper lasted a hundred years, my view, and certainly the advice that we have had from any reputable engineering organisation, is that fibre will be around for the next 20 to 30 years plus. Clearly there will be technologies of the future that will be alternatives post that sort of period, but I have yet to see anyone reputable say that there is an alternative to fibre over the next 10, 15 or 20 years.

CHAIR—There is a lot of comment that the whole area is moving so quickly that what is new and modern and gee whiz today in eight years time will be like sending a carrier pigeon.

Mr Krishnapillai—I think the basic technology behind the network will actually be pretty boring, and that will be fibre. The sorts of applications we use it for and the IT systems that back it up will be absolutely revolutionary. I think we kid ourselves that we know exactly how that will pan out in the next little while. But the basics of a telecommunications network using fibre are well understood, well documented, well agreed on throughout the sector and well agreed on throughout most areas of business. If you were to run that argument, you probably would never build a network because at some point in the future there might be an alternative. It is strongly

our view that the sort of fibre that we have today—which is a pretty basic piece of glass—will be the same technology that will be used in the future. We were talking before about layer 2 and layer 3. The intelligence of the network is in the electronics at either end of that fibre, not in the piece of dumb cabling between. A lot of what we are talking about with the NBN is getting the dumb cable out there so that people like us and others can put the intelligence through the IT systems at either end. That is the stuff that will be revolutionary, in my view, and productive for the country.

Mr Sheridan—And we will have an upgrade path as well.

Mr Krishnapillai—We do have an upgrade path for post-100 meg, up to the gig type speeds.

Senator FISHER—Has Optus been consulted about or had any discussions about the prospect of a deal with Telstra?

Mr Krishnapillai—We have not and we would not expect to be. What we have said all the way through, though, is that the ACCC has to be the final arbiter as to whether that represents good value for taxpayers and will lead to better competitive outcomes.

Senator FISHER—To put it another way, have you had any discussions around what compensation Optus might expect if Telstra were to decommission copper and migrate its customer base?

Mr Krishnapillai—I am not sure that we would be expecting compensation per se. We would certainly want to be involved in a transition plan.

Senator FISHER—I mean in respect of your customers base as a consequence of that.

Mr Krishnapillai—It is an interesting question. There has been a lot of speculation about Telstra being compensated for moving its customer base. We could equally argue that we have a very significant customer base that we are certainly very happy to migrate across.

Senator FISHER—That might be impacted by the decommissioning of copper, for example.

Mr Krishnapillai—Exactly. We know there will be a stranding effect of DSLAMS and other things like that with all of us in the sector over the next five to eight years. We know that is older style technology. There are some upgrade paths there. We also know that fibre will be the way of the future. We just need to make sure we manage the transition path. We understand the issue, but we do not think we will be left out in the cold.

Senator FISHER—You gave me an answer earlier about the prospect of an undertaking dealing with access. Has Optus had any discussions about what might be basic access prices?

Mr Krishnapillai—In terms of the undertaking?

Senator FISHER—Yes.

Mr Krishnapillai—No.

Mr Sheridan—We have put our views forward in terms of how the prices should be set on such a key and sensitive issue.

Senator FISHER—I am harking to the speculation that there might be a deal announced, for example with Telstra pre-budget. So I am trying to get a feel as to whether, if that were the prospect, at this stage, on 14 April, Optus has had any discussions.

Mr Krishnapillai—With NBN Co., government or ACCC?

Senator FISHER—With anybody about whom you might be able to inform the committee.

Mr Krishnapillai—We certainly had put forward, as Andrew said, pretty clearly how we want the pricing discussions to proceed and we made our view plain.

Senator FISHER—Thank you.

CHAIR—If that does not happen, what do you do? Apart from sulking, there is not much you can do about it, is there?

Mr Krishnapillai—We certainly would not sulk. I suspect that, like any organisation, we would review the outcome.

CHAIR—Thank you very much for coming along. We do rely a lot on what Optus tells us. You are certainly one of the most open with this information and we very much appreciate it.

Mr Krishnapillai—Thank you for the opportunity.

[3.12 pm]

COSGRAVE, Mr Michael Duane, Communications Group General Manager, Australian Competition and Consumer Commission

PEARSON, Mr Mark, Executive General Manager, Regulatory Affairs, Australian Competition and Consumer Commission

CHAIR—Welcome. Thank you again for giving us some of your valuable time, as you do so openly and willingly. We do appreciate it. You have been at these sorts of committees often enough for me not to have to repeat all the rights, wrongs, wherefores and obligations et cetera. Would you like to make an opening comment.

Mr Cosgrave—We do not have an opening comment, Senator.

CHAIR—Thank you. As promised, I will start with Senator Lundy who might have to leave us halfway through your evidence.

Senator LUNDY—The issue I want to explore today is the question of equivalence and the particular focus placed on that issue in the Optus evidence and, from the ACCC's perspective, the role outline for the ACCC in the bill with respect to your independent watchdog role on access pricing on the proposed wholesale-only, structurally separated network which NBN are going to build. So I am just wanting to get an overview from the ACCC about their role in maintaining that independent, watchdog role.

Mr Cosgrave—I am happy to give that overview. Firstly, it is important to note that the questions around equivalence are fundamentally different from those that are considered pursuant to current legislation and that is where the wholesale-only nature of the NBN Co. is important. In the sense that the access obligations that apply under current legislation are set up for carriers that operate both as wholesalers and particularly as retailers, the concern is in ensuring equivalence where you have vertically integrated access providers between the retail elements of that organisation's activities and access seekers.

The concerns around equivalence when you have a wholesale-only entity are rather different and I think they are described in the EM to the current legislation as really being around non-discrimination and ensuring that there is not discrimination practised by the wholesale-only entity between its various customers. It is also important to note that that does not necessarily mean that behaviour in all instances needs to be equal or exactly the same and there are roles prescribed for the ACCC, to monitor that and to provide guidance in the event that the legislation is passed in relation to what is effectively acceptable differential conduct. That is perhaps an overview, Senator.

Senator LUNDY—So in essence, equivalence, as we have talked about it before, has been the exercise in trying to achieve it in a vertically integrated market, but under a structurally separated wholesale-only national broadband network, equivalence, provided it is appropriately

regulated—which we know in the exposure bill and in other bills it will be—is achieved by definition of the structural separation of the vertical and retail arms of the market, is it not?

Mr Cosgrave—I would agree with that proposition.

Senator LUNDY—Thank you. That is all I have.

Senator FISHER—The Auditor-General's report has referred to the ACCC's intervention in the round 1 process and in respect of fibre to the home versus fibre to the node. Can you indicate the basis for the ACCC making its recommendation in that respect?

Mr Cosgrave—Certainly. You might recall that the ACCC, under the terms of reference of that tender, had a specific advisory role to the expert panel established by the government and that was a continual advisory role during the process, as well as the provision of a written report to the advisory panel after the receipt of various tender documents. The commission, in that final report, indicated that there were concerns from a competition perspective with fibre-to-the-node architecture vis-à-vis fibre to the home. It is important to note that we made no recommendations as to the appropriateness of a specific technology but we pointed out that a considerable percentage of the costs of a fibre-to-the-node network are located in the node on the street. It is well over 50 per cent; it is 60 to 70 per cent, depending upon various estimations. We pointed out that, if there were interest from government or private entities, in fact by anyone, in upgrading from a fibre-to-the-node to the fibre-to-the-home architecture, there was very little incentive on behalf of the builder of the fibre-to-the-node network to upgrade until they had effectively recovered all their costs on the node.

Senator FISHER—The Auditor-General referred to it pretty much as unsolicited intervention in that respect, I think.

Mr Cosgrave—I would disagree with that characterisation.

Senator FISHER—I am sure he made it very respectfully—I am.

Mr Cosgrave—Indeed, but I would disagree with that characterisation. It was pursuant to an ongoing advisory role.

Senator FISHER—Indeed, but your intervention, from what you have said Mr Cosgrave, was based on competition concerns rather than on technical issues because the ACCC would not be technically competent, would it, to differentiate between fibre to the home versus fibre to the node?

Mr Cosgrave—I would accept that the ACCC is not populated extensively or exclusively by engineers. I think you do gain some technical competence over a decade of regulation in this sector but I would also agree with your characterisation that our concerns were around competition grounds rather than specifically about technology. In other words, they were competition issues arising from the technology rather than the technology itself.

Senator FISHER—Yes, because the technology itself—fibre-to-the-home versus fibre-to-the-node—would more properly be the preserve of the department or now NBN Co. than the ACCC, would it not?

Mr Cosgrave—I would certainly agree with you that there is far more technical expertise within a carrier like NBN Co. than there would be within the ACCC.

CHAIR—Under the current access regime there are criticisms of red tape and inefficiencies. Under the new process, as you read from the exposure draft, how would things change?

Mr Cosgrave—I do not know that you can refer solely to the bill that is under consideration today because the reforms to make changes to the frustration which much of the industry and the commission has shared in relation to the existing access regime are contained within the competition and consumer protection bill rather than within the access bill with which we are dealing today. Fundamentally, as to what is contained in those reforms, to date much of the disputation that we have is effectively resolved by price signalling by the commission—in other words, saying in an indicative way what we think the prices are, telling people to go and negotiate and then, if they fail to successfully negotiate, which they have done over 150 times in the last 10 years, the commission will arbitrate prices and other terms and conditions on a bilateral basis: individually between two carriers, notwithstanding that very often the issues are very much the same between a number of carriers. The legislation currently before the Senate provides, amongst a number of other things, for the commission to make access determinations which effectively then become a reference offer that a carrier can take up. That is much more consistent with regulatory practice in most other overseas jurisdictions.

CHAIR—And would make it ‘easier and more cost efficient’ for your organisation to deal with it.

Mr Cosgrave—That would be our expectation.

Mr Pearson—That is also more consistent with other regulatory regimes that we operate in and that we manage within the ACCC.

Mr Cosgrave—That sort of regime would be administered, for instance, by the Australian Energy Regulator, which is a constituent part of the ACCC in relation to generation and distribution within the energy sector.

Mr Pearson—There is a system with rail which is undertaken similarly, but with some differences, to what would be our regular regulatory role.

CHAIR—You are obviously telling me what advice you are giving. Are you being consulted by the government in relation to the regulatory regime, or has it not got to that at this stage?

Mr Cosgrave—Yes.

CHAIR—You are doing that. Have you been approached regarding the architecture of the National Broadband Network?

Mr Cosgrave—About what? Could you be more specific?

CHAIR—Whether it is about layer 1, layer 2 or layer 3, how it will operate, the technicalities and how that might impact on your role on it?

Mr Cosgrave—The commission is certainly aware of the dates around the provision of services at various layers in the OSI stack. As indicated, it has some sympathy for a position that says, in the first instance at least, that services should be offered as low in that stack as possible to allow potential competition to develop.

CHAIR—Have you been involved in giving advice in that area?

Mr Cosgrave—We have been involved in giving advice, and we have stated that position once or twice publicly.

CHAIR—There has been some debate during the day about what wholesale actually means and what retail means. Is that something that you have had an input into or that you have provided advice on?

Mr Cosgrave—We have provided some advice.

CHAIR—On pricing issues, are you being consulted in that regard?

Mr Cosgrave—As you are aware, under the access bill NBN Co. are obliged if they intend to offer a service to either lodge a special access undertaking with the commission or provide publicly a SFAA, a standard form of access agreement. The commission has been involved in that and NBN Co. have said publicly that they are involved in a process of discussion with the commission, which they are. That discussion is at a relatively early stage, but we do have discussions with NBN Co. about the possibility of the lodgement of a special access undertaking, as we have with a number of carriers in previous years.

CHAIR—Have you been closely involved with NBN Co. Tasmania and their operations, which we are told are due to start in June of this year? I assume they may be close to announcing where they are going price wise and all of that. Have you been closely involved in that?

Mr Cosgrave—We have not been closely involved in that process.

CHAIR—Is it something that you will be looking at to see if there are different and new ways that we could possibly advance with the rollout Australia wide?

Mr Cosgrave—I guess NBN Co. have made clear that the operations in Tasmania are very much a trial. The position has always been precisely that. A trial inevitably raises a lot of new issues that will no doubt advance the learning of all players interested in the rollout of this network. But I think they have also made clear that they do not consider it as particularly valuable from a pricing perspective going forward.

CHAIR—For my own edification, in dealing with the sort of issues that we have been talking about do you actually deal with NBN Co. Ltd, which is not a public authority, or do you deal with the government.

Mr Cosgrave—We deal with NBN Co. Ltd in terms of discussions we have with them as a prospective regulated entity and we deal with the government in terms of the provision of advice in relation to appropriate regulatory arrangements.

CHAIR—We may have some more questions to put to you that we might put on notice, recognising of course that you have better things to do than answer myriad lengthy questions from Senate committees. If there are some, we would appreciate you answering them.

Mr Pearson—We are more than happy to answer them.

Senator FISHER—If you were in the room when Mr Krishnapillai—

Mr Cosgrave—I was here for part of his evidence but not for all of it.

Senator FISHER—He made his pitch for the exposure draft legislation to pretty clearly, and far more clearly than it currently does, spell out structural separation and wholesale only. Does the ACCC know of any international precedent for a wholesale only provider?

Mr Cosgrave—Are we talking here about fibre networks, Senator?

Senator FISHER—Anything that comes close.

Mr Pearson—I think Singapore, but that has wholesale only.

Mr Cosgrave—I am struggling to think of something that is established. My colleague Mr Pearson mentions Singapore, but that is clearly also in a formative stage as well and has somewhat different arrangements. I am struggling.

Mr Pearson—Of course, separation has been an issue in a number of countries because of the vertical integration—as you know, in the UK, in New Zealand and in some other countries, depending on the structure, other competitors, cable versus the incumbent and whether there is access. I think it is generally agreed that access is fundamental but I am not sure if there is any—

Mr Cosgrave—I certainly cannot bring to mind an easy precedent.

Senator FISHER—All right. We can ask that of others. I was wondering whether the ACCC was aware. Coming from a competition perspective, does the ACCC have any expectation about compensation that might be sought from other providers if there were a deal done between Telstra and the government that involved Telstra decommissioning copper and migrating its customer base?

Mr Cosgrave—No.

Senator FISHER—There have been no discussions about it? There has been no input—no expectations?

Mr Cosgrave—The commission is not involved in discussions between NBN Co. and Telstra.

Senator FISHER—Does the commission have any expectations that stakeholders would seek some form of compensation if there were an agreement to that?

Mr Pearson—Are you talking about a deal with any other operators besides Telstra?

Senator FISHER—Yes—the likes of Optus and other participants.

Mr Cosgrave—I do not know that we would have any particular expectation.

Senator FISHER—It may bear on competition, which is what is what I am getting at, if other providers are left flat footed and unable to compete.

Mr Cosgrave—It would depend upon the terms of any agreement that was reached.

Senator FISHER—Fair enough. Mr Krishnapillai was talking about, in Optus's view—my words, not his—the need for the legislation to set down more clearly equivalence of access rather than it being left to an undertaking to be determined between the ACCC and the NBN Co. What would be the ACCC's view, essentially, of that? I do not know whether you heard that bit of the evidence. Can you comment on that?

Mr Cosgrave—I did not hear all of it, and it is always dangerous to comment too fulsomely. I may have come in halfway through that.

Senator FISHER—Let me ask that another way. To what degree can the exposure draft legislation deal more fully with equivalence of access than it currently does—so, leaving less flexibility and gamut, if you like, for the enforceable undertaking to be developed between NBN Co. and the ACCC and putting more of the parameters at the very least in the exposure draft legislation itself?

Mr Cosgrave—I guess I would put it this way: what we have got under existing legislation is the ability for a carrier to develop a special access undertaking. There have been a series of discussions over a number of years between the commissions and, say, Telstra in 2005, when it was considering a—

Senator FISHER—Yes, but we are supposedly moving on from that. There have been a litany of complaints from the industry about the effectiveness or otherwise of the development process for those undertakings—the appeals et cetera. So the question is: to what extent is any legislation able to deal more fully with equivalence of access than the exposure draft legislation does, putting more within the province of legislation itself to be considered by parliament as opposed to a deal—and I am not being disrespectful—an agreement and an enforceable undertaking between NBN Co. and the ACCC?

Mr Pearson—There is always a danger in being too black and white in legislation. It is not that we have an arrogant position and think that we know better than parliament, but there are times when legislation can actually limit the ability and flexibility. Remember that a lot of the criticism in the past has flowed directly from this lack of separation. A lot of the issues relate to incentives that flow from being a very powerful vertically integrated market player. If you do not have that then it changes some of the incentives. Mr Cosgrave's experience in access is probably a lot greater than mine, but you can develop an access undertaking that is strong enough to put those principles but also allow a little flexibility and change. There is some legislation that we work under that I think we have been publicly critical of because it is so prescriptive that it quite often makes it difficult for decisions to be made, to be pragmatic and to take into account other factors as they arise in making those decisions. So I think there is a balance there.

Senator FISHER—Of course, and that is an understandable view from the ACCC's perspective because the more that is in the legislation the less the ACCC has licence to reach an agreement on mutual terms with NBN Co. So that is an understandable position but—

Mr Cosgrave—With respect, it is not really an agreement on mutual terms.

Senator FISHER—Well that is what an agreement is.

Mr Cosgrave—It is an undertaking submitted after a public process, usually according to statutory criteria. The same statutory criteria would apply in relation to a special access undertaking.

Senator FISHER—So that is getting closer to answering my question. Can there be more statutory criteria set down in legislation than there is in the exposure draft bill that would give the likes of Mr Krishnapillai some greater degree of comfort?

Mr Cosgrave—I am not sure we would agree with Mr Krishnapillai that there is not already a robust set incorporated through the existing access regime.

Senator FISHER—The simple question is: can there be more?

Mr Cosgrave—The danger, as Mr Pearson has pointed out, with very extensive criteria is that you end up with very protracted processes as a consequence.

Senator FISHER—But some of that parties allege that is already the case.

Mr Cosgrave—Yes, but their concerns are largely for other reasons around the bifurcated nature of it.

Senator FISHER—Okay. Can I then take you to Mr Pearson's suggestion a little earlier that some of that resulted from the structural separation shortcomings.

Mr Cosgrave—From the integrated nature of the principle access provider.

Senator FISHER—Do you see that part of the current regime being resolved by the bills in their current form, particularly given the concerns expressed by the industry about the discretion that the minister has to effectively exempt NBN Co. from the wholesale only principle?

Mr Cosgrave—I will simply say that the commission's clear and consistent position is that the wholesale only nature of the NBN is—

Senator FISHER—Sacrosanct?

Mr Cosgrave—It is important to the nature of regulatory task we have got.

Senator FISHER—Are you able to express a view about the minister's discretion in the exposure draft legislation?

Mr Cosgrave—That would be in the nature of policy and is a matter for the government.

CHAIR—The NBN Co. can establish a subsidiary company, and I am just looking at section 152AXC of the exposure draft which, in its headline, says:

No discrimination between access seekers

and continues:

(1) An NBN corporation must not, in complying with any of its category B standard access obligations, discriminate between access seekers.

Then it says that this rule:

... does not prevent discrimination on grounds relating to creditworthiness

and further, it:

... does not prevent discrimination if:

(a) the discrimination aids efficiency ...

Have you considered whether the presently drafted regime might enable NBN Co. to unfairly discriminate in favour of a favoured entity, a subsidiary? There is of course some speculation, or some interpretation of the act, that says that the subsidiary could be a retail player. Have you considered that aspect?

Mr Cosgrave—Not that particular scenario. I think that the exposure draft puts forward a couple of propositions that might bear against the reading that you have put up. Firstly and most fundamentally, I am not sure that a subsidiary could necessarily be a retail provider unless the minister exempted it, and I would accept that. If that situation—

CHAIR—On most people's interpretation of the exposure draft that is a possibility. The minister could so determine it at his discretion.

Mr Cosgrave—Yes, the minister has a broad discretion under the act, I will accept that. Secondly, there is a provision that indicates clearly that a differentiation in price and/or non-priced terms ‘cannot confer a systematic advantage on a single access seeker’—and I think that is 152AHC of the explanatory memorandum. That is one factor relevant to the possibility of NBN favouring a potential retail subsidiary. The other factor was that the ACCC has enforcement powers and, indeed, the ability to give guidance in relation to undue discrimination. Both of those factors would be relevant to what you are positing.

CHAIR—But the draft clause says that they shall not discriminate, and then it says that that does not apply if it aids efficiency. There would be a suggestion that perhaps a retail subsidiary—perhaps the old Telstra argument that a retail subsidiary could have efficiencies—

Mr Cosgrave—Clearly, one of the tasks provided to the commission under the draft legislation is to provide some guidance around efficiency and undue discrimination, and I would accept that in the event that the legislation would pass that that would be a task with some priority for the ACCC.

CHAIR—You obviously have considered this aspect of the legislation. Are you happy enough with the legislation as it stands in the exposure draft in that regard?

Mr Cosgrave—I am sorry, Senator, I am not clear.

CHAIR—You do not have any objection from an ACCC point of view with the provisions of 152AXC in the exposure draft?

Mr Cosgrave—I put it that the commission has got broad enforcement powers and broad guidance powers and some direction from the explanatory memorandum as to the way in which they should be exercised.

CHAIR—But in this instance that I am quoting, on what is actually efficiency—is that what you are saying?

Mr Cosgrave—The commission is well grounded in determining under current legislation what is in the long-term interest of end users. The commission gives much thought to what is an efficient investment and use of infrastructure. The concept of efficiency is a fairly fundamental economic one that the commission is certainly very well versed in, and it would be consistent with what we do in a number of other sectors to provide guidelines on what might be efficiency in the circumstances.

CHAIR—So nothing in that clause causes you any professional disquiet.

Mr Cosgrave—No.

CHAIR—Thank you.

Senator FISHER—Does the ACCC have a view as to whether the open-access regime should apply not only to infrastructure owned and operated by NBN Co. as part of the NBN Co.

infrastructure but also, for example, to other infrastructure that might be owned by NBN Co. but be leased by others? Should access provisions apply to that as well?

Mr Cosgrave—I might have to take that on notice, because I would want to look quite closely at what the legislation says. I have not particularly turned my mind to the extent of coverage of services by the NBN.

Senator FISHER—Thank you. Mr Pearson, did you have anything to volunteer at this stage?

Mr Pearson—I was going to say the same thing. I think it would depend a lot on the practical as well as on what the legislation says. I do not think we have really thought that through.

Senator FISHER—If you do and form a view, if you have any particular examples of how it might work I would appreciate those too.

CHAIR—Thanks again for your considerable assistance to the committee over all of its existence. We very much appreciate it.

Mr Pearson—Thank you for the jelly beans! I ate mine but I notice Michael has not finished his.

Senator FISHER—I hope they give you a competitive advantage!

[3.48 pm]

GREEN, Professor Walter Battman, Director, Communications Experts Group Pty Ltd

CHAIR—Welcome. Thank you very much for joining us yet again. We do appreciate your expertise and your willingness to cooperate with the committee in its deliberations. Thank you for your submission. You have been to Senate committees enough times to understand what they are all about, so I will not go through all of the rules about parliamentary privilege et cetera. Would you like to make an opening statement before you subject yourself to questions?

Prof. Green—Yes. I have four points I would like to raise. First, I have literally just come back from the UK and I was fortunate enough to get an invitation to the release of a report which looked at how the services and applications are working under the UK Openreach structurally separated carrier. It gives a very good idea of what things should look like when the NBN is half built or three-quarters built. The key issue there is that they still have a number of serious problems that limit them in the ways they can deliver services. That is the report that has been downloaded and given to you.

The second one is that I have serious concerns about the current version of the legislation with regard to the need or desirability of having variations for access to the NBN. If you look carefully at where those variations are likely to go, the first is that there are a number of new interfaces coming on the market, so there will be some companies who will want to take advantage of these interfaces. For this I say yes, the ability to have some kind of variation or to negotiate new access. The key issue here is that getting access to the network and varying that interface will not inhibit or block any other person from using that interface at a later date. However, in terms of price and conditions, the ability to give discounts to the large players, to me, is not necessary. The NBN is not in a competitive environment, and discounts to large players are only really needed in a competitive environment. I do not actually see any need to offer volume discounts; in fact, I believe the legislation should be amended to block any kind of price discount.

The third one, which is what I have outlined in my submission, is that there are various protocols. As I have indicated, networks have three characteristics. This is why there are a range of different protocols, the problem being that once you select one you eliminate the others, so you now have the potential to block other people trying to get access to the NBN to build their type of network. Again, this is why I believe the whole area of variations for access and such should be reworded, principally to allow modifications of interface standards—because that is where the real technical advantages and innovations are—and to eliminate either pricing conditions or protocol-type access.

CHAIR—When you say a service that is protocol-independent, is that the same as a layer 2 service?

Prof. Green—No, it goes beyond. It is in fact layer 1 and below. A typical example of a difference would be that today you can buy a 10 gigabit service but there are now 40 gigabit and 100 gigabit interfaces being planned in the standards committee, so some people may wish to

say, 'Please can we negotiate access at 40 gigabits or 100 gigabits' or whatever they want. That is well below what is called layer 2.

CHAIR—Sorry to interrupt you.

Prof. Green—The other one is the range of services offered by the NBN. The CEO has indicated that they are offering LEB, which I believe is a local Ethernet service, and an AEB—aggregated Ethernet service. The points of interconnection will be where there is no contested backhaul. The implication for Western Australia is that this means that all the services will terminate in Perth and in the process will seriously disadvantage many of WA's regional ISPs, who have been very innovative and very effective in getting internet services out to our regional customers. I believe that the NBN should be offering a wider range of services, particularly backhaul services to support our regional and remote customers, especially in WA.

The other issue is that their proposal means that for a regional customer to get access to the internet he has to have a connection to Perth. That means networks or signals going all the way to Perth and then all the way back to the centre, which simply degrades the service because you are going to get more errors in transmission. The other thing about limiting those two particular services is that it limits the opportunities to build networks to suit health, education and aged care. In the case of aged care, some medical monitoring devices do not guarantee performance over internet or VOIP. As health, education and aged care are part of the motivations for buying it, I believe this is one area where those very services are going to be disadvantaged by the current format. Again, this is why I am saying that the NBN should be required to build or supply a wider range of services to meet the specific needs of those three services. That is all I have to say in my introduction.

CHAIR—Thank you very much, Professor Green. I did not quite follow how you arrived at the statement—of course, I am very much an amateur when it comes to telecommunications—that all services must end in Perth in the Western Australia context?

Prof. Green—There are no contestable backhaul services within WA and the biggest problem that the carriers and carriage service providers in Perth have is that they are unable to establish or create their own links outside Perth. One of the areas where our regional ISPs have been very innovative is in how they have built and constructed their own links to get from the regions back into Perth.

CHAIR—Are you saying that the NBN Co. will not be doing that?

Prof. Green—Correct. They have said that if there is no contestable backhaul then there will be no access to the NBN at a regional or remote centre. Throughout WA there is no contestable backhaul, so that means by default that Perth is the only area.

Senator FISHER—Could you explain what you mean in that context by 'contestable backhaul'?

Prof. Green—It means that there are two or more carriers who can offer a fibre connection from Perth to say Bunbury, Geraldton or Kalgoorlie. At the moment, the only people who can provide a fibre connection from Perth to the major regional centres is Telstra.

CHAIR—Are you saying that NBN will not be going there?

Prof. Green—I am saying that NBN is going there and they will, via various negotiations with Telstra, get access to fibre to bring all the connections back to Perth. The problem that you have got is that people in Kalgoorlie, Bunbury, Geraldton, Port Hedland, Karratha and all those places will then have to go back to Telstra to buy a link from Perth to their centres. So the NBN is negating what I believe were the benefits. They should make the connections available in Geraldton and then provide backhaul from them in competition with Telstra to allow people to build the networks they want.

CHAIR—That is not a legislative situation, is it? That is just what you understand of what the NBN Co. has indicated it will do.

Senator FISHER—How do you form this view?

Prof. Green—This is from discussions that have been given to me from NBN people, but at the same time they say they are only prepared—and this is what I am not sure on—to build the 100 megabit per second link to the customer and they are not really permitted to provide any other. I am just trying to make sure that the legislation actually does enable them to provide additional services.

Senator FISHER—In that context Telstra is the customer but nobody else. Is that what you are saying?

Prof. Green—Yes.

Senator FISHER—If that were the case in regional Western Australia—which greatly distresses me because, although I am a senator for South Australia, I was a native of Western Australia until I was almost 30—would that not also be the case in other rural and regional communities across Australia?

Prof. Green—Yes, it would. I do not really know the network in South Australia, but I would certainly think that Port Kembla and others in the northern part of South Australia would suffer the same problem.

CHAIR—We will—

Senator FISHER—cogitate and ruminate over that, I think.

CHAIR—I was just going to say we will think about it! Perhaps if we need further elaboration, clarification or explanation we might get in touch with you.

Senator FISHER—Also, if the professor gets any details around the basis for him forming that view he might care to inform the committee.

Prof. Green—Yes, okay.

CHAIR—Professor, what you are saying is that you will still be able to get services that go from Geraldton to Broome but instead of doing Geraldton to Broome direct you will do it Geraldton to Perth to Broome.

Prof. Green—That is correct.

CHAIR—And you are saying that that has an inefficiency, a less than optimum impact on the service.

Prof. Green—That is correct, yes. Just take Geraldton. There are ISPs in Geraldton who now, to connect to their customers, will have to go down to Perth and then have the signal sent all the way back to Geraldton.

CHAIR—Sorry?

Prof. Green—A Geraldton ISP cannot connect directly to his customers in Geraldton.

Senator FISHER—So it is worse than Senator Macdonald's scenario because it actually means a boomerang.

Prof. Green—Correct.

Senator FISHER—It is not just for a Geraldton to transmit to a Broome that the professor is saying there would need to be recourse to Perth. It may be one business in Geraldton to the next-door business in Geraldton.

Prof. Green—Yes, correct.

CHAIR—And is that a different situation to what is available now?

Prof. Green—Correct.

CHAIR—That is interesting.

Senator FISHER—Interesting? It sounds plain stupid—and counterproductive to the concept of what should be happening under the National Broadband Network. But we do hear you being a little hesitant about the certainty of the premise upon which you are basing this view, don't we, Professor?

Prof. Green—Yes, because—how can I say it?—I am not sure how far they are constrained by the legislation in their services.

Senator FISHER—Yes, so you might be proven wrong.

Prof. Green—I might be, but at the same time I am saying that because of the way they are going about it, the way they are adamant, they must have something that is restraining them.

Senator FISHER—Call me simple, but please put it again because I think we will want to put it to some of the witnesses tomorrow. What is the constraint? You had one line that resonated.

Prof. Green—You have it direct. It is aggregated, where you have no contestable backhaul. All of WA does not have any backhaul. This then limits what we can do.

Senator FISHER—Because it can only be got from Telstra.

Prof. Green—Because the backhaul can only be purchased from Telstra, correct.

Senator FISHER—I think we are getting it.

CHAIR—You say, without having researched it, that that may be the case in South Australia and perhaps in Northern and western Queensland?

Prof. Green—Correct.

CHAIR—Perhaps the Northern Territory as well?

Prof. Green—Yes, I would say pretty well the Northern Territory.

CHAIR—Very interesting. As Senator Fisher says, we may well raise that at tomorrow's hearing with some whose business it is to look at those things, like the NBN Co. I understood from your comments—and please correct me if I am wrong—that you are saying the same price should apply from NBN Co. to everyone it services, that there should not be any special deals for volume or efficiency, that everyone should get the same price whether it is a very small operator or a really huge one. Is that what you are saying?

Prof. Green—That is correct. From my experience in putting together or working on billing platforms for a telecom, there is a bit of a furphy that if you are processing a million calls that is more efficient. The actual cost of processing is minimal; it is the same regardless of whether it is a large customer or a small customer. So, in terms of saying there are more inefficiencies or anything else, the only reason discounts are offered to the large customers is the fact that they have got buying power. In the case of the NBN, the issue of buying power should not or could not be allowed because, in effect, if you say the NBN needs a certain amount of money and you give discounts to your large customers, it means the smaller customers are going to end up paying for the discounts of the larger customers. That is certainly my understanding of the intent of the NBN.

CHAIR—If the negotiations between Telstra and NBN break down and Telstra goes it alone in competition with NBN, then perhaps there would be, on your scenario, a case for NBN saying to some of its retailers, 'You bring me more business rather than taking it to Telstra and I'll give you a good price.' Is that correct? It is very hypothetical, of course.

Prof. Green—I am going to say it is going to be rather tricky trying to put that into practice for the simple reason that you do not want to force people to move but—I will have to take that one on notice.

CHAIR—All right.

Prof. Green—There are better ways of compensating people. Okay, the answer is that I believe that would be a financially weak argument in that, in practice, you normally buy customers from other people so, yes, pay them a compensation figure for moving their customers on to you, but then make sure that you maintain the payment per customer remaining the same, because that means if you offer them a discount upfront you actually have an ongoing payment for that customer to that person. Now what happens when that customer wants to change?

CHAIR—Absolutely. I follow that. Do you have any comment regarding the possibility of the NBN Co. retailing perhaps to governments, subject to the minister's unfettered discretion to allow them to do so?

Prof. Green—In the past, in previous submissions, I have indicated that it may be advantageous for the NBN to be able to sell services to the government without having to go through a private like Telstra, Optus or other carrier. However, not knowing what the legislation looked like at that stage, what I was really expecting is that a government agency—and this goes right down to even state governments—should have the ability to create their own equivalent of a carriage service provider. It is this carriage service provider that is manned and operated by either the federal or state government or government agency that is in fact totally separate from the NBN.

They will need some kind of dispensation in that the current law allows the NBN to cut off the supply for non-payment and this kind of thing. Those kinds of exemptions will need to be given by the minister. So I am proposing that the NBN at no stage should be allowed to act as a retail customer but that government—and when I say government I am talking about federal, state and government agencies—should be allowed to create their own equivalent of a carriage service provider and buy their services direct from the NBN as per any other carrier.

CHAIR—But that would fill the current retail carriers with horror to think that all the various government departments and agencies around Australia could possibly no longer be their customers.

Prof. Green—This is where I actually see a structurally separated carrier changing the market. For example, Defence—and again from my experience in a telecom—does have its own unique requirements and would be better served by having its own carriage service provider that buys and manages the service for the Department of Defence. The same applies to the Department of Foreign Affairs and Trade. I accept that the current commercial market sort of looks to the government but the whole idea of the NBN is to improve efficiencies and cost savings for government; therefore, why not let them create a carriage service provider that specifically fulfils their needs. Typically, in Defence you have all sorts of security issues. They can now manage all that in-house. You can say that the market is going to shrink for the non-government retail carriers and carriage service providers but at the same time why shouldn't the government have the benefits of efficiencies they can gain from the NBN?

CHAIR—One would assume then though that the rest of us ordinary people would have to pay more to the retailers if the retailers did not have a big customer—that is, various government agencies.

Prof. Green—What you will find is that they will become dinosaurs and go out of business and your more nimble mid-tier or second tiers will, in fact, take over the market. It is a case of the larger customers if they do not have their efficiencies and that kind of thing right then, I am sorry, they need to go out of business. It is a completely new market environment, if you like, when the structurally separated carrier like NBN comes into effect.

CHAIR—Professor, I am trying to recall your previous submissions, but you are saying that is not a new view from you, you have all the way along held the view that government should be able to access the wholesale network direct for efficiencies and security purposes.

Prof. Green—Correct, yes, but in this instance just because of the format of the legislation they should effectively create their own carriage service provider which is funded and staffed within the government agency or whatever it is.

CHAIR—There would have to obviously be restrictions in how far afield they could then sell their ‘retail services’.

Prof. Green—Getting an exemption from having services cut off then, yes, there will be a restriction that that can only serve that government agency or group of government agencies.

CHAIR—That is very interesting.

Senator FISHER—Returning to your earlier concerns about back haul this might help us understand it. Is Telstra’s back haul in WA copper or fibre?

Prof. Green—It is all fibre.

Senator FISHER—All right.

Prof. Green—There are some radio links. The only alternative back haul back to Perth is radio links from the internet service providers but they have a problem that they cannot get enough capacity on a radio link and they desperately need access to fibre.

Senator FISHER—And thereafter the restrictions, or the problems that you are talking about, follow.

Prof. Green—Yes.

Senator FISHER—Moving to the boomerang problem that I so named—Geraldton to Geraldton having to go via Perth—would that be resolved if NBN Co. were to change its point of interconnect architecture in any way?

Prof. Green—Yes. In fact, it would work better if they had like points of interconnect in major regional centres like Geraldton, Kalgoorlie, Bunbury and even, probably, centres as large as Albany, and then provide the backhaul from those centres to Perth. Because, quite often, an internet service provider in Geraldton can aggregate all the traffic he wants and then just take one link from Geraldton to Perth, which gives a lower cost service to the people in Geraldton.

Senator FISHER—Thank you, that helps.

CHAIR—Finally from me: has your group looked into the economics of the national broadband network proposals or NBN Co. Ltd? Is that something that you do or are you more of a technical group?

Prof. Green—No; I have actually analysed Telstra models and been critical of them. The only comment I can make is that I believe someone should be able to go in and audit the financial modelling that has been produced for the NBN, because I have serious concerns about it. I believe the model and the figures they have quoted are for a vertically integrated carrier and not a structurally separated carrier. The results should, in my view, be completely different.

CHAIR—I hope I do not malign Jennifer Hewett, who wrote in the *Weekend Australian* last week. I apologise if I am misquoting her but my understanding of what she has written—and which I have seen elsewhere—is that at \$43 billion, with a government promise to operate with a commercial return on the investment and with the existing carriers being able to offer, as I understand it, 25 megabit services for something like \$50 a month, to get a commercial return you would have to be charging, on average, something like \$200 per month. On that basis it seems that the economics do not stack up. Is that what you are saying, perhaps in different words?

Prof. Green—Having worked in a carrier where the original goal was to be structurally separated I think the cost structure and the revenue stream for a structurally separated carrier is completely different to what I call a vertically integrated carrier. In fact, in our case when they did move to a vertically integrated carrier model because they thought they could make more money, they went bankrupt. However, the structurally separated carrier model would have been viable and would have delivered significant benefits. This is why I am saying that once they talk about prices of \$70 or \$200 they are using models which are based on vertically integrated carriers. My view is that if you do that you are going to get what I call non-viable NBN cost structures. But if you actually build it on a real structurally separated carrier—that is, what is happening in the UK and what we experience here in Perth—you will have a model that can effectively compete with ADSL. That is why I am saying that somebody needs to go in and audit very carefully what that report has come out with, because I am not sure that they have modelled a structurally separated carrier.

CHAIR—I think I follow what you are saying there but, labouring the point, let me put this proposition to you. A \$43 billion capital cost build and a commercial return at, say, eight per cent is a figure. If you divide that amongst the number of users in Australia at this time you end up with a wholesale price which, once you add it to the retail price, Australians or any customers will simply not pay. Do you agree or disagree with that? Are my thoughts somehow very misguided?

Prof. Green—Let's put it this way: first of all, I do not agree with the \$43 billion offer. I believe there are significant cost savings. If you take what I call the standard 'Yes, we will go past an existing house and dig up the ground and put in conduits,' then there are a number of opportunities for the government and the NBN to substantially reduce the cost of installation. One of the concerns I currently have is that the NBN is not doing that. This is why I come back to the point that a cost model for a structurally separated carrier is significantly or substantially

different from a vertically integrated carrier. There are things that you can do differently because you are not going into the so-called retail end of the market that enables you to cut your costs considerably. That is what is being experienced by Openreach currently in the UK and we also experienced it here in Perth.

CHAIR—Professor, you just referred to the things that you could do. Have you told us about them either in your current submission or in your previous submissions? Have you suggested to us what the NBN should be doing that it is not doing?

Prof. Green—I haven't but what I have indicated and stated very clearly is that the NBN should be a structurally separated carrier that provides the connection to the customer and backhaul services. It is when you get in that mode you get all the changes. The reason I was saying that is that yes, you can get cost reductions and cost savings but you cannot get it as a vertical carrier. If you want to get into the retail market you have a whole lot of investment in services, systems and equipment that a structurally separated carrier does not even need to waste time on. Immediately they go into retail I do not think they realise how much additional investment they have got. Telstra did not spend \$2.5 billion on its billing package for nothing.

CHAIR—Those are all the questions we have of you. Can I, again, thank you very much for your time this afternoon and for your assistance on more than one occasion to this committee. We very much appreciate it. Watch with interest as this matter unfolds and those of us on the committee will certainly be watching your take on the NBN as it commences operations. Thank you very much, again, for your participation.

Prof. Green—Thank you.

Committee adjourned at 4.23 pm