LEGISLATIVE ASSEMBLY

Standing Committee on Broadband in Rural and Regional Communities

Progress Report on the Committee's Activities

Meeting rural and regional communication needs

Report No. 3/54 – March 2010

New South Wales Parliamentary Library cataloguing-in-publication data:

New South Wales. Parliament. Legislative Assembly. Standing Committee on Broadband in Rural and Regional Communities.

Progress report on the Committee's activities: meeting rural and regional communication needs / Legislative Assembly, Standing Committee on Broadband in Rural and Regional Communities. [Sydney, N.S.W.] : The Committee, 2010 – ix, 61 p. ; 30 cm. (Report 3/54, March 2010)

Chair: Sonia Hornery, MP
March 2010

ISBN: 9781921686092

1. Broadband communication systems—New South Wales.
2. Rural telecommunication—New South Wales.
I. Title
II. Hornery, Sonia.
III. Series: New South Wales. Parliament. Legislative Assembly. Standing Committee on Broadband in Rural and Regional Communities. Report ; no. 3/54.

384 (DDC 22)

Table of Contents

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Terms of Reference

The Legislative Assembly Standing Committee on Broadband in Rural and Regional Communities was established on 21 June 2007 to inquire into the needs of rural and regional communities in relation to telecommunications (including broadband) and other technology services and, in particular, to report on the following terms of reference:

(a) The availability of telecommunications (including broadband) and other technology services in rural and regional communities;

(b) The benefits and opportunities for rural and regional communities of having access to telecommunications (including broadband) and other technology services;

(c) Disincentives and barriers to the provision of telecommunications (including broadband) and other technology services to rural and regional communities;

(d) The consequences for rural and regional communities of not having, or not having adequate, access to telecommunications (including broadband) and other technology services, having regard to likely future industry and technological developments; and

(e) Options for encouraging providers of telecommunications (including broadband) and other technology services to extend services to rural and regional communities.

Chair's Foreword

I am pleased to table this report of the Standing Committee on Broadband in Rural and Regional Communities.

I have only recently joined the Committee but I am extremely interested to learn about the important work its members have done to promote the needs of rural and regional communities.

Since the completing its first major report *Beyond the Bush Telegraph* in March 2009, the Committee has continued its work into how to improve telecommunications services in rural and regional areas.

In April 2009, the Federal Government announced fundamental changes to telecommunications policy including the roll-out of a National Broadband Network giving fibre to the home for most of the country over the next few years. The Committee chose not to initiate any major inquiries until it was apparent how these announcements would affect services in non-metropolitan areas.

Throughout 2009, the Committee continued to listen to issues raised by residents in rural communities about their concerns over telecommunication services. They have continued to liaise with the Federal Department of Broadband, Communications and the Digital Economy about the progress of the National Broadband Network roll-out. The Committee conducted visits of inspection to allow them to see at first hand the innovative solutions and new technologies that could assist rural and regional communities.

The Committee also held a public hearing, which allowed them to question government, telecommunications experts and industry on how telecommunications can be improved in the bush. They also investigated what new technologies could do to enhance life in rural communities if these services were available.

Telecommunications availability is about more than access to entertainment. Many bush communities are facing a dwindling population, drought stricken rural enterprises, struggling businesses and reduced government and business services. Access to affordable and reliable telecommunications services can ensure that these communities have all the advantages that metropolitan areas have.

The Committee also notes the continued work of the NSW Government in providing programs and assistance to rural and regional communities. They have undertaken such projects as the Community Broadband Development Fund, Connected Classrooms, broadband test beds and the Virtual Selective Schools initiative.

I would like to thank my colleagues for their participation in Committee activities and the secretariat for their efforts in preparing this report.

Sonia Hornery MP
Chair

Chapter One - Introduction

Role of the Committee

1.1 The Standing Committee on Broadband in Rural and Regional Communities was appointed from members of the Legislative Assembly of New South Wales to investigate the telecommunications needs of rural and regional communities with a particular emphasis on broadband. Its terms of reference include assessing the availability of services, identifying the benefits to rural and regional communities of these services, establishing whether there are barriers and disincentives to service delivery and reporting on options for encouraging service providers to extend services to new areas.

1.2 This Committee's role is complicated by the fact that the New South Wales Government has limited control over communications delivery. Under the Australian Constitution, the Commonwealth has regulatory power over communications and many decisions about service delivery are made by private sector carriers.

1.3 The Committee is however able to identify issues and recommend appropriate action for the State Government and suggest that it encourage the Federal Government to take particular approaches.

Previous Activities and Report

1.4 In September 2007, the Committee sought information by advertising its terms of reference in the press and writing directly to key stakeholders. It received 41 submissions from telecommunications companies, medical organisations, state and local government and the community.

1.5 In March 2008, the Committee tabled a discussion paper summarising the views expressed in submissions and consultations called *Key Issues for Further Investigation*. It received a further 24 submissions in response.

1.6 The Committee consulted widely by holding meetings with carriers and government agencies in Sydney. The Committee also travelled to Orange, Griffith, Canberra and Queanbeyan to discuss telecommunication needs with local business and community members. It met with officers of the key federal agencies, the Department of Broadband, Communications and the Digital Economy and the Australian Communications and Media Authority. The Regional Telecommunications Independent Review Committee met with the Committee in the course of conducting its own national review of telecommunications.

1.7 The Committee held public hearings in Sydney on 23 June 2008 and in Lismore on 1 August 2008.

1.8 This consultation, submissions and hearings led to the Committee's next report entitled *Beyond the Bush Telegraph: meeting the growing communication needs of rural and regional people* which was tabled in March 2009.

1.9 The report found that the telecommunication sector is changing rapidly as technology develops but the services available in rural and regional communities are not keeping up with those in metropolitan areas.

1.10 This report contained a total of 14 recommendations (see box below). A number of these related to the steps that the State Government could take to improve the

availability of services for rural and regional communities. These include improved coordination between all levels of government, improved efforts to attract services to particular communities, removing roadblocks to planning at local government level and increasing the use of State Government facilities where possible.

1.11 It also made some suggestion for how the Federal Government could improve the regulation of the communications sector although it acknowledged that these are matters for the Federal Minister.

Report Recommendations

RECOMMENDATION 1: The Government should continue to take leadership in improving knowledge within rural and regional communities of the best ways to enhance broadband services by conducting community engagement activities such as publicising the results of successful case studies in rural and regional areas.

RECOMMENDATION 2: The Government should consider establishing a separate centre of expertise in either the Department of State and Regional Development or Commerce for developing local entrepreneurship in broadband and other communications services and to improve liaison between all levels of government and telecommunication service providers.

RECOMMENDATION 3: The Government should work with the Federal Government to ensure the National Broadband Network roll-out gives a high priority to areas currently without terrestrial broadband services.

RECOMMENDATION 4: Through appropriate intergovernmental channels, the Government should encourage the Federal Government to develop a national telecommunications infrastructure strategic plan.

RECOMMENDATION 5: The Government should regularly evaluate the benefits of projects delivered by the Community Broadband Development Program and the results publicised in regional areas where communities may be eligible for the program.

RECOMMENDATION 6: The Government should consider ways to reduce barriers for regional telecommunication companies to gaining access to Crown land held by various agencies (such as NSW Forests, National Parks and Wildlife Service and the Department of Lands) to install communications devices by introducing a central contact point within an appropriate agency such as the Department of Commerce to coordinate such requests and streamline terms of access taking into account the existing development controls relevant to those agencies.

RECOMMENDATION 7: Through appropriate intergovernmental channels, the Government should encourage the Federal Government to make radiofrequency spectrum suitable for wireless broadband applications affordable to non-profit and community enterprises in regional areas.

RECOMMENDATION 8: The Department of Planning should consider issuing advice to local government about streamlining arrangements for developers wanting to install optical fibre as a voluntary measure and consider ensuring that new developments retain a right of way for subsequent installation of fibre.

RECOMMENDATION 9: The Department of Commerce should continue to structure its procurement of IT services for government agencies to maximise the possibility of infrastructure extension in rural and regional areas.

RECOMMENDATION 10: The Department of Planning should consider the need to review planning advice to local governments to include a requirement that carriers applying for approval to install communications towers demonstrate why they are unable to share existing infrastructure.

RECOMMENDATION 11: The Department of Commerce should continue to structure its procurement of IT services for government agencies in order to promote opportunities for competition in rural and regional areas.

RECOMMENDATION 12: Through appropriate intergovernmental channels, the Government should encourage the Federal Government to improve the knowledge of visitors to single carrier areas about the lack of coverage by other networks and to advise of appropriate steps to take to avoid complete loss of mobile contact.

RECOMMENDATION 13: Through appropriate intergovernmental channels, the Government should encourage the Federal Department of Broadband, Communications and the Digital Economy to publicise information about the Broadband Service Locator and Provider Data Speed testing more broadly such as by regularly advertising in the rural and regional press

RECOMMENDATION 14: The Government consider ways of improving accessibility to broadband services by developing policies to enable government facilities including schools to be used after hours.

Responses to Committee Report

1.12 The Committee received responses from Senator the Hon. Stephen Conroy, Minister for Broadband, Communications and the Digital Economy and the then NSW Minister for Planning, the Hon. Kristina Keneally MP. Further details of these responses can be found in Chapter Two.

Committee Activities

1.13 The Committee deferred further rounds of public consultation pending developments in the NBN implementation. The Committee however undertook a number of activities to further its understanding of telecommunication issues in rural and regional areas.

Visits of Inspection

1.14 The Committee conducted two visits of inspection in 2009. The first visit was to the Telstra Experience Centre in the Sydney CBD on 13 March 2009. The visit enabled the Committee to experience new technologies at first hand and to discuss possible usage in rural and regional communities.

1.15 The second visit of inspection took place on 15 and 16 September 2009. The Committee visited Canberra and Bungendore to meet with relevant Federal and local government bodies, representatives of the community and communication companies.

Briefings

1.16 The Committee also held briefings with a number of stakeholders, government agencies and telecommunications experts. Among those who briefed the Committee were: Ms Fran Schonberg, Manager, NSW Office of Rural Affairs; Dr John Ellershaw, Centre for Ultra Broadband Information Networks (CUBIN), University of Melbourne; and Messrs Douglas Golding and Lionel Sonntag, from Savvy Connect.

Hearings

1.17 The Committee held one hearing on 30 November 2009 where it heard from nine witnesses from four different organisations.

1.18 The Committee's activities will be discussed in more detail throughout the report.

Chapter Two - Responses to Report Recommendations

2.1 As stated in the previous Chapter, the Committee received responses to its first major report from Senator the Hon. Stephen Conroy, Minister for Broadband, Communications and the Digital Economy and the then NSW Minister for Planning, the Hon. Kristina Keneally MP. Both Ministers provided comprehensive responses to the recommendations that related to their respective portfolios. See Appendix One for copies of the correspondence in full.

Federal Minister for Broadband, Communications and the Digital Economy

2.2 In his response Minister Conroy detailed the progress that the Federal Government had made in regards to providing funding for improved telecommunication services in rural and regional communities.

2.3 Among the programs the Minister discussed was the Digital Regions Initiative, which would receive $46 million in funding for innovative broadband applications for improved education, health and emergency services. This will be co-ordinated through all levels of government.

2.4 A further $11.4 million will be provided to continue and enhance the subsidies available under the Satellite Phone Subsidy Scheme to assist with the affordability of mobile communications for those living and working in areas without terrestrial mobile coverage. The increased subsidies will make it easier for people to purchase satellite phone handsets.

2.5 He also detailed that a further $3.7 million will be allocated to the Indigenous Communications Program that was initially allocated $30 million. This program was instituted to improve essential telecommunications services, basic public internet access and computer training in Indigenous communities.

2.6 In regards to Recommendation 13 of the report relating to improved dissemination of information about the Broadband Service Locator and Provider data speed testing, the Minister noted that the Regional Telecommunications Review called for a high level of collaboration between all tiers of Government must be maintained with regards to discussing specific telecommunications issues in regional and rural areas. The Federal Government will be working with all tiers of government, as well as industry and consumer groups in implementing a response to the Review.

2.7 In response to Recommendation 3 about prioritising areas without terrestrial broadband when implementing the NBN, the Minister detailed the announcement on 7 April 2009 of the establishment of the NBN Co that will be responsible for investing up to $43 billion over eight years to fund the roll out and for ongoing operational costs of the network.

2.8 The Minister also noted that the Committee's report suggested changes to the telecommunications regulatory framework. The Minister detailed the release of the discussion paper "National Broadband Network: Regulatory Reform for 21st Century Broadband" and stated that the Government was currently reviewing submissions received.

2.9 The Minister also outlined the Rural and Regional National Network Initiative that in addition to the further $14 million for the Digital Regions Initiative will receive $80.3 million. This Initiative includes $15.30 million additional funding to the Australian Broadcasting Corporation (ABC) to deliver more than 50 enhanced ABC Local Broadband Hubs in regional areas. The Rural National Broadband Network Coordinators will also receive $5 million.

2.10 The letter was concluded by the Minister advising the Committee that the Federal Government had allocated $250.8 million over four years until 2012 to fund the Australian Broadband Guarantee. This provides access to broadband services for all Australian residential and small business premises.

NSW Minister for Planning

2.11 The NSW Minister for Planning's response provided details on how the draft *Telecommunications Facilities Code including Broadband* had addressed recommendations 3 and 10 of the report. The draft *Code* will be implemented after an amendment to the *State Environment Planning Policy Infrastructure 2007*.

2.12 The Minister stated that the draft *Code* would assist in the delivery of wireless broadband even to those areas that currently do not even have terrestrial broadband services thus assisting in addressing recommendation 3 of the Committee's report. This will occur through the provision of "new telecommunication towers" as complying development in rural zones.

2.13 The draft *Code* also exempts subscriber connections deployed by satellite terminal antennas or dishes (up to a certain diameters in size), and subscriber connections deployed by wire or fibre-optic cable where they are co-located with an underground or above ground electricity supply connection.

2.14 As per the Commonwealth *Telecommunications (Low-impact Facilities) Determination 1997*, the draft *Code* maintains the existing situation whereby underground cable facilities including fibre optical cables are classified as developments, which do not need to go through the development approval process.

2.15 The draft *Code* also supports recommendation 10 of the Committee report with the inclusion of Principle 2, which states: "Telecommunication facilities should be co-located wherever practical".

2.16 The Minister also remarked that she would defer comment on recommendation 8 of the report regarding mandating the use of fibre optic infrastructure to the home and workplace in greenfield estates until after the Federal Government completes consultation and introduces legislation on this matter as it had promised in the announcement about the National Broadband Network.

Chapter Three - Development in Communications Policy and Programs

Role of Governments

3.1 This Chapter provides a brief overview of the developments in Commonwealth and State communications policies and programs of relevance to rural and regional communities.

3.2 As explained in detail in the Committee's previous reports, under the Australian Constitution, it is the Commonwealth not the State Government that regulates communications. This means that the New South Wales Government has no direct control over communications policy. However, it does have some influence as a major purchaser of services and provides a small amount of funding to improve services.

National Broadband Network

3.3 At the time of the Committee's last report, the Federal Government had committed up to $4.7 billion in the National Broadband Network (NBN). This proposal involved the construction of an open-access fibre-based network delivering at least 12 megabits per second to 98 per cent of homes and businesses in Australia.[1]

3.4 On the 7 April 2009, this commitment was replaced with contributing $43 billion to establish the Federal Government's aim of providing 90 per cent "fibre to the premises" coverage with speeds of 100 megabits per second. For rural and regional communities in Australia, coverage will be achieved by the use of wireless and satellite technologies to deliver speeds of up to 12 megabits per second.[2]

NBN Co Board

3.5 As part of the new commitment, the Federal Government announced that it would establish a company, NBN Co Limited, that would be charged with investing up to $43 billion over eight years delivering broadband Australian residences and businesses. NBN Co would build and operate the NBN.[3]

3.6 The announcement stated that NBN Co will be a wholesale-only company that will be oversighted by the Australian Competition and Consumer Commission.[4] The Federal Government also introduced legislation to improve competition in the telecommunications sector.

3.7 On 25 July 2009, Mr Mike Quigley became Executive Chairman of NBN Co. He joined Mr Doug Campbell, Mr Peter Hay, Ms Siobhan McKenna, Ms Diane Smith-

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[1] *Beyond the Bush Telegraph*, Standing Committee on Broadband in Rural and Regional Communities, NSW Parliament, March 2009 p. 7

[2] DBCDE, National Broadband Network: 21st century broadband [http://www.dbcde.gov.au/broadband/national_broadband_network]

[3] *ibid.*]

[4] Joint media release from the Hon Kevin Rudd, Prime Minsiter, the Hon Wayne Swan, Treasurer and Senator the Hon Stephen Conroy Minister for Broadband, Communications and the Digital Economy, 3 July 2009 [http://www.minister.dbcde.gov.au/media/media_releases/2009/021]

Gander and Mr Gene Tilbrook. On 23 December 2009, Mr Clem Doherty and Mr Terrance Francis also joined the Board.[5]

Regulatory Reform

3.8 The Government also announced a review of the telecommunications regulations and that greenfield developments would be required to have fibre from mid 2010. The Government has commissioned an implementation strategy for the NBN which should be completed in early 2010.

Company Headquarters

3.9 The location of the NBN Co headquarters has yet to be decided with three states all bidding for the opportunity. Queensland, Victoria, and New South Wales have all expressed interest in being the base for the new NBN Co and the possible economic growth and tax revenue that it could bring to their states.

NBN Tasmania Limited

3.10 A subsidiary of NBN Co, NBN Tasmania Limited (TNBN Co) was established to build and operate the NBN in that State. Construction on the roll-out has started and the first ten communities that will receive superfast broadband in Tasmania have been announced. [6]

3.11 Tasmania was seen as the perfect test bed for the national roll-out due to its size and the fact that it has the lowest broadband coverage in Australia. The national average for broadband coverage is 52 per cent whereas Tasmania's coverage reaches approximately 39 per cent.[7]

3.12 The construction of the Tasmanian broadband network is a joint venture between TNBN Co and Aurora Energy, the local electricity distributor. [8]

Mainland test beds

3.13 On 2 March 2010, the first five mainland test bed sites were announced. Two of these are in New South Wales: the coastal communities of Minnamurra and Kiama Downs south of Wollongong and an area of west Armidale including the University of New England.[9]

3.14 Testing is due to begin early 2011. Approximately 3000 residences and businesses in each town will be part of a trial of the network. NBN CEO Mr Mike Quigley said that the test sites were chosen due to their diversity, Mike Quigley, says the sites were selected based on their diversity that will allow NBN Co to assess construction and installation techniques.[10]

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[5] Media realease Senator the Hon Stephen Conroy Minister for Broadband, Communications and the Digital Economy, 23 December 2009 [http://www.minister.dbcde.gov.au/media/media_releases/2009/120]

[6] DBCDE, National Broadband Network: 21st century broadband [http://www.dbcde.gov.au/broadband/national_broadband_network]

[7] "Tassie NBN construction to start in October: Conroy" Mitchell Bingemann, *The Australian,* 12 August 2009 [http://www.australianit.news.com.au/story/0,25197,25918551-15306,00.html]

[8] *ibid.*

[9] Media release Senator the Hon Stephen Conroy Minister for Broadband, Communications and the Digital Economy, 2 March 2010 [http://www.minister.dbcde.gov.au/media/media_releases/2010/019]

[10] "Broadband network test sites unveiled" ABC News, 2 March 2010,[http://www.abc.net.au/news/stories/2010/03/02/2834482.htm]

Digital Regions Initiative

3.15 The Digital Regions initiative is the Federal Government's response to Regional Telecommunications Review chaired by Dr Bill Glasson, which reported in 2008. The program will make $60 million available between 2009 and 2013 to co-fund projects in rural, regional and remote communities. The Initiative is positioned to leverage the NBN, and hopes to fill the gaps which are currently apparent by boosting innovation in health care, improving and extending education services and increasing the use of digital technologies to improve emergency and disaster response.[11]

3.16 State, territory, local governments and businesses owned by those bodies were able to apply for Digital Regions Initiative funding. There was also scope for private and not-for-profit organisations to partner with eligible organisations.

3.17 The indicative range for funding is $2 million to $7 million for each project with project partners matching the funding, effectively meaning that projects will range from $4 million to $14 million. Smaller or larger bids will also be considered.

Eligibility

3.18 Draft guidelines for the Initiative were released for comment on 15 June 2009, and consultations were held with national stakeholders. The final deadline for feedback and submissions was 8 July 2009, and the final Guidelines were released on 20 August 2009.

3.19 There were three significant changes made to the funding process so that:

- Smaller scale projects (less than $2 million) will be considered. Local government, in particular, struggled to meet the lower levels.
- The National Partnership Agreement (NPA) was altered so that all successful proposals would be provided through the NPA, rather than only State and Territory proposals as initially stated.
- The intended use of funding was changed slightly to make some smaller scale broadband links and infrastructure projects open to consideration for funding. Previously funding was only available for "essential equipment" and not for "establishing fibre linkages".

3.20 The selection criteria for the projects were that they must be innovative and show outcomes and benefits of the project and be complementary with existing programs. Applications were required to show financial sustainability once Government funding ceased or show how further funding would be obtained without Government assistance.

3.21 There will be two rounds of funding available with the first round opening on 20 August 2009, and the second round in 2010. It was indicated, however, that the funding may not be split equally over the two rounds.

3.22 The expressions of interest were posted online to give people an idea of what projects were being suggested and also for organisations to advertise for prospective partners. Applications were to be judged on merit with no weighting accorded to individual selection criteria or geographical location or remoteness.

[11] DBCDE, Digital Regions Initiative [http://www.dbcde.gov.au/funding_and_programs/digital_regions_initiative]

Project Funding Announced

3.23 On 10 December 2009, the Prime Minister announced at the *Realising our Broadband Future* forum event which projects were to be funded in the first round under the initiative at a cost of $28 million.[12]

3.24 In New South Wales, the selected projects was $5 million for Chronic Disease Management systems in the Hunter New England region in NSW which will increase coverage of facility based telehealth services.

3.25 On 11 January 2010, the Prime Minister announced funding for a further four projects, three of which are in New South Wales:

- Justice Health Clinical Outreach Program Phase II. Using telehealth systems to enhance health outcomes and wellbeing for people in custody and for their families in NSW.)$1.265 million in funding.)
- HEALNet, Online Professional Development for Health Professionals. A TAFE NSW project to enable nurses and allied health professionals to complete professional development online. ($0.881 million in funding.)
- NSW Ambulance Service Clinical Outreach Program Phase II. To implement new medical record, administration and e-learning systems at 190 ambulance stations in NSW. ($1.795 million in funding.)[13]

Regional Backhaul Blackspots Program

3.26 As part of the National Broadband Network announcement the Federal Government proposed to invest $250 million in improving backhaul links to rural and regional areas in the Regional Backbone Blackspots Program (RBBP). These links would form a key part of the NBN roll-out in mainland Australia.[14]

3.27 On 4 December 2009, Nextgen Networks were signed to roll-out almost 6000 km of new fibre optic links to connect over 100 regional locations along the routes to the six priority areas of Geraldton, Darwin, Emerald and Longreach, Broken Hill, Victor Harbor and South West Gippsland[15]

[12] Joint media release the Hon Kevin Rudd and Senator the Hon Stephen Conroy Minister for Broadband, Communications and the Digital Economy, 10 December 2009, [http://www.minister.dbcde.gov.au/media/media_releases/2009/113]

[13] Media release Senator the Hon Stephen Conroy Minister for Broadband, Communications and the Digital Economy, 11 January 2010 [http://www.minister.dbcde.gov.au/media/media_releases/2010/003]

[14] Media release Senator the Hon Stephen Conroy Minister for Broadband, Communications and the Digital Economy, 4 December 2009, [http://www.minister.dbcde.gov.au/media/media_releases/2009/109]

[15] DBCDE, National Broadband Network: 21st century broadband [http://www.dbcde.gov.au/broadband/national_broadband_network]

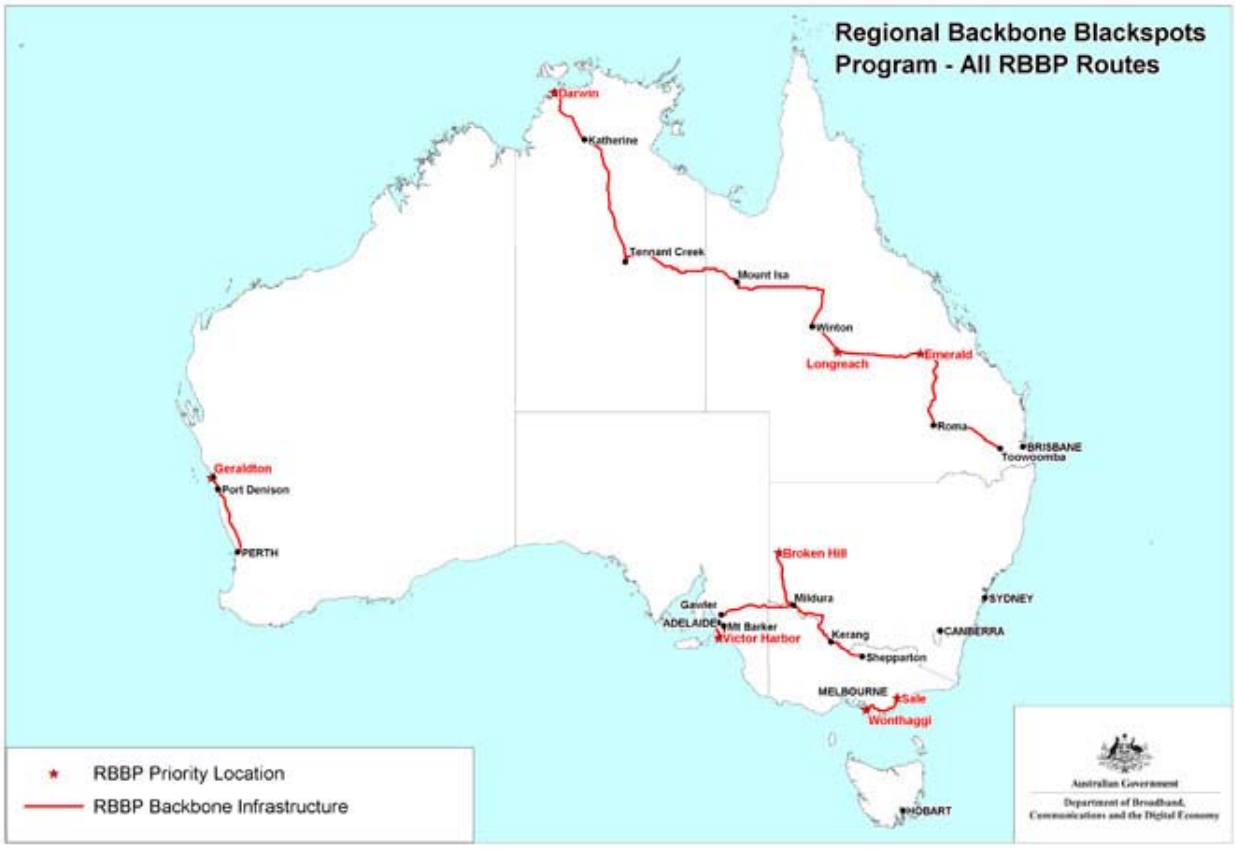

Figure 1 RBBP Routes[16]

NBN Co-ordinators

3.28 In order to ensure that rural and regional communities benefit from the new infrastructure, the Federal Government provided $5 million in funding for NBN co-ordinators. These co-ordinators will work with Nextgen, retail service providers, local governments and the community to ensure the infrastructure is fully utilised.[17]

3.29 Senator Conroy stated:

> It will allow the services provided in Melbourne and Adelaide in education, in healthcare, in aged care, environmental services, government services, all of those things that people take for granted in Melbourne and Adelaide will now become available to all those towns.[18]

3.30 The Federal Government anticipates that links will be completed within 18 months.[19]

Government 2.0

3.31 In June 2009, the Federal Government established the Government 2.0 Taskforce. The Taskforce's aim was to investigate how the Australian Government engages with

[16] *ibid.*
[17] *ibid.*
[18] "Nextgen secures broadband tender" ABC News, 8 December 2009 [http://www.abc.net.au/news/stories/2009/12/08/2764891.htm]
[19] *ibid.*

the public and how the Government can improve this process by utilising new technologies. Mr Nicholas Gruen, Lateral Economics CEO, chairs the Taskforce.[20]

3.32 In early December 2009, the Federal Government released its draft report *Engage: Getting on with Government 2.0: Report of the Government 2.0 Taskforce*. The idea behind Government 2.0 is how governments can utilise technology for social and economic benefit by promoting greater engagement with the community. The public were invited to comment on the draft report, the final of which was released on the 22 December 2009.[21]

3.33 The report details the importance of public collaboration in government polices and programs and details the tools, which can be utilised to facilitate this. The report also places great emphasis on the availability of government data and information made readily available to the public. Allowing the public to have greater ease of access to government data and information assists in creating a far more democratic and transparent government.[22]

The Online and Communications Council

3.34 The Online and Communications Council (OCC) functions as the peak ministerial forum across governments to consider and reach agreement on strategic approaches on information and communications issues at a national level.[23]

3.35 In November 2009, the OCC released a communiqué detailing a number of initiatives generated during their last meeting.

Provision of communication services to Indigenous communities

3.36 Council Members endorsed a *Framework for the provision of communications services to Indigenous communities*. This Framework was developed as a joint commitment to address the communications issues that effect Indigenous communities.[24]

3.37 The Framework focuses on the availability, affordability and use of communications services in Indigenous communities, especially remote communities, as these areas require more coordinated action across all levels of government. The OCC members agreed to a set of communication service standards and to examine more appropriate and affordable communication products and services.[25]

Connected Government

3.38 Expanding on the national framework of the Connected Government objective that were endorsed by the OCC at its meeting in December 2008, all levels of governments have agreed to progress initiatives including:

- a pilot project aimed at establishing a one stop online process through all levels of government for a single life event (for example, having a baby);

[20] Joint media release the Hon Lindsay Tanner, Minister for Finance and Deregulation and Senator the Hon Joe Ludwig, 22 June 2009 [http://www.financeminister.gov.au/media/2009/mr_352009_joint.html]
[21] Department of Finance and Deregulation *Engage: Getting on with Government 2.0*, December 2009, [http://www.finance.gov.au/publications/gov20taskforcereport/index.html]
[22] *ibid.*
[23] OCC, [http://www.occ.gov.au/home]
[24] OCC, Seventeenth Online and Communications Council Communiqué, 12 November 2009, [http://www.occ.gov.au/releases/seventeenth_online_and_communications_council_communique]
[25] *ibid.*

- identifying opportunities to improve the environmental sustainability of all Government ICT;
- recognition of a standardised ICT performance measurement across government and investigating ways to establish a common approach to tele-working within government;
- investigating a consistent approach to the way that governments use names to identify an individual;
- adopting the international standard for Web Content Accessibility Guidelines version 2 and undertaking a national ICT project to support social inclusion to address access issues for a wider variety of disabilities including people with age-related illness, motor impairments and cognitive disabilities;
- investigate the common security standards to improve secure sharing of government information.[26]

Activities in New South Wales

3.39 Since the announcement of the NBN by the Federal Government, the NSW Government has begun working on ways to use the new program to extend broadband connectivity and services throughout New South Wales.[27]

NSW NBN Taskforce

3.40 On 12 May 2009, the then NSW Premier Nathan Rees announced the establishment of the NSW National Broadband Network Taskforce. This Taskforce was established to assist in the implementation of the NBN in New South Wales.[28]

3.41 Mr Graham Head, the Director General of the Department of Services, Technology and Administration was appointed as head of the Taskforce. The Taskforce has representatives from the Land and Property Authority, and the departments of Premier and Cabinet, Treasury, Planning and Industry and Investment. It also has external advisors such as National ICT Australia (NICTA), the Australian Telecommunications User Group (ATUG), the CSIRO and a member of the Communications, Electrical and Plumbers Union.[29]

3.42 Currently the Taskforce is working on five projects. The first project of these is to secure the NBN Headquarters in New South Wales, the location of which has yet to be determined.

3.43 The second project was to conduct an audit of assets owned by the State Government, in order to ascertain whether or not they might facilitate the NBN roll-out in New South Wales. Mr Colin Griffith, General Manager of Strategy in the Chief Information Office of the Department of Services, Technology and Administration told the Committee:

[26] *ibid.*

[27] Evidence of Mr Colin Griffith, Department of Services, Technology and Administration, Transcript 30 November 2009, p 13.

[28] "States fight over national broadband network" Andrew Colley, *The Australian*, 13 May 2009 [http://www.theaustralian.com.au/business/states-fight-over-nbn/story-e6frg8zx-1225711571260]

[29] Evidence of Mr Ben McCarthy, Department of Services, Technology and Administration,Transcript 30 November 2009, p.14.

> For the first time, the New South Wales Government has a comprehensive analysis of all the telecommunications assets it holds. Those assets are intended to be used as part of the discussions with the National Broadband Network Company and the Federal Government regarding the assistance, in terms of their deployment. The National Broadband Network Company has indicated that that information is incredibly important and valuable to them. They see the role of utilities as being important in terms of connecting fibre, particularly at what we call the last mile, or the last couple of hundred metres into the home, because they will be using a lot of utility assets to get close to residential homes, for example. So that is quite an achievement.[30]

3.44 Another important project the Taskforce has been working on is to ensure that New South Wales planning processes will assist in the broadband roll-out.[31]

3.45 The fourth project of the Taskforce has been to promote the ICT industry and skills development within the State. The task has been two-fold in identifying New South Wales based businesses that can assist with the roll-out as well as identifying any gaps in skills, education and training. The Taskforce has been liaising with the Department of Education and Training in the development of training to ensure that the state has a workforce that is appropriately trained to assist with the roll-out. As a representative of the Department of Services, Technology and Administration told the Committee:

> The discussions are continuing with the NBN Co., to try to identify the best opportunities to place jobs in New South Wales essentially. The NBN Company has indicated that jobs will be placed based on the availability of skills. We are working very closely with the NBN Company as the company grows, and at this stage the company has only 50 staff. They will have a substantial presence in Sydney and Melbourne, so we are continuing to work with them on that.[32]

Government Test Beds

3.46 The fifth project that the Taskforce has been working on is to establish test beds in New South Wales. These test beds would essentially be mini broadband network environments. These test beds would be used to help understand what the network would be used for once the roll-out is complete.[33]

3.47 The government could trial how broadband would be best utilised once the national roll-out has begun. The reasoning behind the test beds is to ascertain what types of services and applications will be of the most benefit to the economy and to the community when the broadband roll-out is complete.[34]

3.48 The Department has partnered with the CSIRO and the National ICT Research Authority (NICTA) to conduct a number of research projects. The test beds will be looking into areas of health, education and commerce.[35]

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[30] Evidence of Mr Colin Griffith, Department of Services, Technology and Administration, Transcript 30 November 2009, p.14.
[31] Evidence of Mr Ben McCarthy, Department of Services, Technology and Administration,Transcript 30 November 2009, p.14.
[32] *ibid,* p.15.
[33] *ibid,* p.18.
[34] *ibid,* p.20.
[35] Media release, the Hon Nathan Rees, Premier, 12 March 2009, [http://www.chiefscientist.nsw.gov.au/getmedia/41a11ad5-6825-4260-88eb-3b6810b88fae/090512-NSW-National-Broadband-Network-Taskforce.aspx]

3.49 Another area of research that is also a Federal Government priority is smart meters. The State Government will be looking into the ways in which smart meters can benefit energy conservation and how to manage this effectively.[36] It will provide $11.5 million over five years.

Community Broadband Development Fund

3.50 The Community Broadband Development Fund is a program under the umbrella of the state Government's Building the Country Package. The fund is for the development of local community based wireless networks for small communities in rural and regional communities in New South Wales.[37]

3.51 On 24 June 2009, the Minister for Lands announced the first 11 towns under the scheme to receive funding. These are:

- Quambone
- Hill End
- Pilliga
- South West Rocks
- Delegate
- Dalgety
- Wilcannia
- Jubulum near Tabulam
- Coleambally
- Goodooga
- Balranald

3.52 The Committee was advised in a meeting with Ms Fran Schonberg, Manager, Office of Rural Affairs on 10 September 2009, that these towns were considered as "pilot communities" and the panel had deliberately selected different geographic characteristics.

3.53 Consultants had been selected to develop the technical specifications for the town and Office of Rural Affairs would manage the contract for the construction. It was hoped that technical plans could be ready by October 2009 and for communities with existing backhaul services, it could be working by Christmas. She noted that Goodooga (extreme north central NSW) had a fibre link to the school so backhaul was available at least in that place even if not in the other towns.

3.54 In early 2010 there will be a second round of applications. Ms Schonberg noted that this is a five-year program, which should have results years before the completion of the National Broadband Network.

NSW Connected Classrooms Program

3.55 The NSW Connected Classrooms Program is an initiative by the State Government to enhance the Department of Education and Training (DET) with the capacity for ICT

[36] Evidence of Mr Colin Griffith, Department of Services, Technology and Administration, Transcript 30 November 2009, p.15.

[37] Department of State and Regional Development, Building the Country Package: Community Broadband Development fund [http://www.business.nsw.gov.au/NR/rdonlyres/F12DA033-D77B-49AE-8E58-0E6A38F00E39/0/CBDFinfo.pdf]

teaching and learning. The Program was initiated in March 2007 with a commitment from the Premier to provide $158 million investment over four years.[38]

3.56 On 20 November 2009, the Minister for Education, the Hon Verity Firth announced signing a large contract with Telstra to deliver optical fibre to the majority of the State's schools and classrooms at a cost at $280 million. This should be completed by September 2010.[39]

3.57 The Connected Classrooms Program consists of three projects:

- Interactive Classrooms Project (ICP) – delivering interactive whiteboards, video conferencing facilities, data collaboration and support networks.
- Learning Tools Project (LTP) – trialling the use of collaborative tools and blogs for teaching and learning purposes.
- Network Enhancement Project (NGEN) - enhancing bandwidth capacity and reliability.[40]

Virtual Selective Class Western NSW

3.58 From 2010, students in Western New South Wales that previously had to leave home to attend selective schools can now participate via the internet. The new virtual selective school allows students to study selective maths, English and science without having to travel long distances to regional centres. Students who are selected for this program will study half their day doing selective classes by internet and half in their local schools. Thirty students have been selected to participate in the program, they come from 17 schools in western NSW, from Blayney in the central west to Broken Hill in the far west.[41]

Conclusion

3.59 Since the Committee's report in March 2009, there has been a radical shift in national communications policy with the announcement of the NBN and associated regulatory reforms. The Committee notes that these may lead to delays in implementing many improvements to services in rural and regional communities.

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[38] Department of Education and Training, Connected Classrooms Program [https://www.det.nsw.edu.au/strat_direction/schools/ccp/aboutccp/index.htm]

[39] "Fast-tracking the education revolution in NSW schools" Bruce MacDougall, *The Daily Telegraph,* 20 November 2009 [http://www.dailytelegraph.com.au/news/fast-tracking-the-education-revolution-in-nsw-schools/story-e6freuy9-1225799922973]

[40] Department of Education and Training, *op cit*.

[41] "Selective NSW school classes by internet", *The Sydney Morning Herald*, 23 February 2010 [http://news.smh.com.au/breaking-news-national/selective-nsw-school-classes-by-internet-20100223-ovwf.html]

Chapter Four - Possibilities of New Technology

4.1 The Committee had an opportunity to visit and be briefed by a number of experts in the telecommunications field in 2009. This provided them with an insight into what new technologies could offer to rural and regional communities and how infrastructure could be improved.

Telstra Experience Centre

4.2 The Committee conducted a visit of inspection to the Telstra Experience Centre in the Sydney CBD on 13 March 2009. The Centre gives Telstra the opportunity to demonstrate some of the ways new technology can be used. For the Committee's visit Telstra had set up demonstrations involving communication, health and education.

Video Conferencing

4.3 During the visit, the Committee was given opportunity to participate in a high speed, high definition video conference with Mr Hugh Bradlow, Telstra Chief Technology Officer who is based in Melbourne. The video conferencing was extremely smooth and did not suffer from any delays. The room had a number of high definition television screens and a power point display (which was operated from Melbourne) giving the appearance of a roundtable discussion despite the fact that Mr Bradlow was not in the room.

4.4 Mr Bradlow spoke to the Committee about some of the new technologies Telstra hopes to be bringing out soon and how the Next G Network has recently been upgraded to a maximum theoretical speed 21 Mbps. He noted that while the peak speeds available on the network are not the same as what users experience, increasing the peak speed would lead to an equivalent increase in the speed available to users once they upgraded their equipment.

4.5 He also explained some of the problems, that the Committee has previously heard, with regards to providing internet access to remote areas. He summed it up with the ratio 60:30:8:2 which means that it is the same cost and effort to provide quality telecommunications and high-speed internet for 60 per cent of the population as it is for the final 2 per cent living in remote Australia. He explained that Telstra considered that WiMAX technology had significant disadvantages to the coverage and quality of service provided by the Next G network, and because of its small share of the global market, would be a niche technology.

4.6 The Committee was told that various companies had acquired the videoconferencing technology, at slightly lower standards in order to save time and money on travel. The Committee was also assured that all the communication was completely secure as it took place over a closed and encrypted network.

4.7 The Committee then witnessed the ways in which the internet can be used to assist health workers and patients in rural and regional areas. Firstly, the Committee was told about a bedside unit that could be used to store and retrieve all necessary information relevant to a patient. This unit, which would only be accessible by appropriate staff members, could include medical records and also recent medication history. It could also be used as an entertainment system by the patients who would be able to access the internet or satellite television etc.

E-Health

4.8 The Committee also discussed an e-health application used by Breastscreen in Victoria. They established a mobile breastscreening van with a wireless router that could travel to all parts of the State and transmit digital images of the scans to metropolitan areas for rapid analysis. This increased the accessibility and timeliness of breast screening services. In the past, Breastscreen would take a mammogram, courier this to a radiography clinic, and then wait for the results before passing these on to the patient. This system enabled the images to be assessed almost immediately and the women notified within a very short time-frame.

4.9 The Committee was shown a "Bluetooth glucometer". The glucometer seen by the Committee was a small device, which could be used by diabetics to test their blood-sugar levels. With the appropriate applications, this information can then be "bluetoothed" to a mobile phone, and then send the reading to a secure website which would check it against predetermined minimum and maximum levels. Should there be any problems with the readings, the website then sends a text to the patient and an email to the relevant doctor. The Committee understands that this system was launched as Telstra's Diabetes Online Management service in December 2009.[42]

Data Transfer

4.10 The Committee was then shown a demonstration of the Next G Network in action as it transferred files totalling 100 Megabytes in only a couple of minutes.

Education

4.11 Finally, the Committee saw a video presentation of a number of schools in rural and regional areas and Telstra staff in Melbourne communicating via videoconferencing. The quality of the video conferencing used by the schools was not as high as that experienced by the Committee earlier in the visit but Telstra said that it had a lot of positive feedback. They said that some of the things that had particularly impressed the schools was the ability to communicate live internationally (for example with researchers at an Antarctic base, and astronauts at Cape Canaveral) and the fact that it seemed to encourage the boys in the classes to participate more than they would otherwise.

Savvy Connect

4.12 Mr Doug Golding and Mr Lionel Sonntag, representatives from SavvyConnect gave a presentation to the Committee on 29 October 2009. SavvyConnect is an internet service provider using wireless broadband (WiFi) technology. SavvyConnect operates a network of free wireless hotspots, with open access to anyone wanting to use the service. The company aims to partner with local government, chambers of commerce and proactive community groups to provide accessible internet.[43]

4.13 Mr Golding explained that WiFi is the best solution for service delivery where the cost of cables is prohibitive. Typically, the distance covered by their system is 200 metres to 1 kilometre but this could be extended with different equipment for up to 15km with a clear line of sight. The model they have established is for SavvyConnect to partner

[42] "Telstra Next G™ mobile solution helps improve diabetes management" media release 14 December 2009 http://www.telstra.com.au/abouttelstra/media/announcements_article.cfm?ObjectID=46202

[43] "SavvyConnect Corporate Information" [http://www.savvytel.com.au/]

with a Council to set up a subsidised wireless service which is partially supported by a revenue stream from advertising local businesses.

4.14 In New South Wales SavvyConnect has been working with a number of local councils including Bega and Lane Cove to provide free wireless broadband services at "hotspots".

4.15 Lane Cove will be the first area coming online. In this area, a big issue was that lots of people did not have internet access but needed for such tasks as paying bills online. SavvyConnect also intended to set up 10 spots, which will cover the entire council area in Wodonga, in Victoria,.

4.16 SavvyConnect would develop an agreement with each Council so that unsuitable advertising could be excluded. The site would be split so it is partly Council information and community events as well as local business ads.

4.17 In Lane Cove the system is set up by the Chamber of Commerce and supported by the Council. The system is open to registered users who need to provide a valid name and address and each user is provided with a log in (so it can exclude people who might abuse the system). Council is able to limit the amount that users can download and filter content.

4.18 This is a workable solution for many smaller towns as it is up to the Council to provide service because there would not be any otherwise especially for people in outlying areas. The provision of WiFi services could assist rural and regional communities in the areas of education, community involvement and commerce.

CUBIN

4.19 On 26 June 2009, Dr John Ellershaw from the Centre for Ultra-Broadband Information Networks (CUBIN), Department for Electrical and Electronic Engineering at the University of Melbourne, gave the Committee a presentation on "Passive Optical Networks for Rural Broadband". Dr Ellershaw explained that Passive Optical Networks (PON) are systems using optical fibre to transmit information that do not need power to operate. This contrasts with Digital Subscriber Line (DSL) which needs a power source at the nodes.

4.20 Dr Ellershaw went on to explain that there are various different types of PON such as "GPON" which means "gigabyte PON" and involves splitting the standard optical fibre strand into 32 different splits so that individual customers get data of up to 72 Mbps. The fibre could be split further into for instance 64 or 128 services but that would reduce data capacity for individuals.

4.21 In the research undertaken by CUBIN, GPON was able to deliver 72 Mbps up to 20 kilometres away from an exchange and in laboratory conditions could operate at 60 kilometres from the exchange. This contrasts with the extremely limited range offered by DSL which loses efficiency at more than 1.5 kilometres from an exchange and loses service completely at more than four or five kilometres.

4.22 GPON systems need new optical fibre to operate. Much of the existing fibre cannot be used. Another complication is that in areas where wiring is underground in existing suburbs the ducts holding fibres are full and additional ducts would be required.

4.23 The cost of installing new fibre varies a great deal. In rural areas it costs around $10,000 per kilometre but around $30,000 in urban areas. For underground

installation in existing ducts, it costs around $50,000 per kilometre but if a new duct is required, then it can cost between $100,000 and 200,000 per kilometre.

4.24 As part of the NBN roll-out, Dr Ellershaw considered it likely that fibre would be hung from power and phone lines and might lead to similar public outrage about the unsightliness of the cables as occurred when the HCF cables were installed to deliver Pay TV in the mid 1990s.

4.25 In other countries fibre has been installed to people's homes as part of government investment programs and has led to higher uptakes of broadband than in Australia. For instance, in the mid 1990s the Japanese government decided to install fibre in every home. This has led to a peaking in the use of DSL even though this technology is still growing in other countries. Singapore's government established a company very much like that proposed for the NBN.

4.26 The exception to this pattern is the USA where Verizon installed a lot of fibre to compete with the cable TV companies who were competing with it by offering mobile phone services.

Limitations of Wireless

4.27 Dr Ellershaw commented that wireless broadband systems had only a limited role in delivering high speed broadband because, at the end of the day, there was only limited bandwidth available. Fibre tends to be more reliable than alternatives so maintenance costs are lower.

Implementing GPON in rural Communities

4.28 Population density in Australian urban areas is 100 times that in rural areas. This means in rural areas, infrastructure costs are up to ten times higher per customer.

4.29 Dr Ellershaw's analysis of population density in Victoria showed that 91 per cent of people lived within 20 kilometres of towns and that 99 per cent lived within 60 kilometres.

4.30 Dr Ellershaw's modelling assumed 20Mbps would deliver two High Definition television channels. This was done before the announcement of the NBN that promised 100 Mbps to most of the population. The modelling compared the costs of wireless, fibre to the home and fibre to the node options for broadband delivery in urban and rural areas.

4.31 He noted that most discussions of the NBN tended to categorise populations as either "urban" or "rural" when in fact many people in rural areas live in towns and would be able to receive the same level of broadband services as in metropolitan areas and currently can probably receive broadband through DSL. It is the people in the areas outside the towns who would only receive 12 Mbps under the NBN proposal.

4.32 Dr Ellershaw's research showed, the cost per household to deliver fibre is vast but in rural areas there is in fact very little difference in cost comparison between fibre to the node and fibre to the home because the distance between houses means that there needs to be lots of nodes as ADSL only reaches limited distances.

4.33 Under the wireless option, Dr Ellershaw noted that at these bit rates they would be really stretching the technology and there would need to be lots of base stations at a cost of roughly $100,000 each and requiring to be cabled for backhaul purpose. The

cost per customer is the same in urban and rural areas because each base station can only support the same number of services.

Conclusion

4.34 Dr Ellershaw considered that a hybrid solution for the NBN was best with one solution within rural towns and another outside them.

CSIRO

4.35 On 30 November 2009, representatives from the CSIRO's Information and Communication Technologies Centre gave evidence before the Committee at a public hearing.

4.36 During the hearing, Dr Alex Zelinsky detailed how he believed the CSIRO could assist in the NBN roll-out with their expertise on new technologies and advice on how to best implement them for consumers.[44] He stated that the CSIRO firmly believes that broadband will assist in many areas of future scientific research.[45]

4.37 The CSIRO's Information and Communication Technologies Centre has been involved in a number of programs trialling new technologies, especially in the area of telemedicine.

New South Wales Trials - Virtual Critical Care Unit

4.38 CSIRO developed a real-time telepresence link enabling specialists to treat critically ill patients at remote locations.

4.39 Virtual Critical Care Unit (ViCCU) allows a specialist in, for example, emergency medicine or obstetrics, at one hospital to supervise a team at a remote hospital in real-time. The system currently links three hospitals in New South Wales. Hospitals in rural and regional parts of Australia have difficulty providing the round-the-clock specialist expertise typically available in major centres. This technology eases the burden of travelling a long distance to access specialised medical treatment.[46]

4.40 The first installation of ViCCU was between Nepean Hospital, on the western outskirts of Sydney, and the Blue Mountains District ANZAC Memorial Hospital, 80 kilometres away in Katoomba. A clinical trial of the system ran for 18 months during which there were 443 documented 'activations'. This trial was independently evaluated by the Centre for Health Informatics at the University of NSW. The system remains in use and has been extended to a third hospital at Lithgow, on the far side of the Blue Mountains from Katoomba.

4.41 Both of these programs were designed so that specialist technical knowledge is not required and can easily be conducted by doctors. The pilots were originally funded by the CSIRO Centre for Networking Technologies and Information Economy but were so successful that they are now commercially supported. The major advantage to this technology is that patients are able to access specialist medical care without having to travel long distances. Apart from being costly and time consuming, this may be detrimental to patients' health.

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[44] Evidence of Dr Alex Zelinsky, CSIRO, Transcript 30 November 2009, p. 2.

[45] *ibid.* p.2

[46] CSIRO Information and Communication Technologies Centre [http://www.ict.csiro.au/page.php?did=16]

4.42 During the 30 November 2009 public hearing, Dr Zelinsky explained to the Committee that one of the reasons the technology was not taken up was that the trials they conducted were under the assumption that they had unlimited band-width and little cost. This meant that, while the trials proved that the technologies worked, the band-width required for the applications is not readily available in the very rural and regional locations where this technology is most needed.[47]

4.43 Dr Zelinsky explained that they partnered with New South Wales Health and also StateRail to conduct the test. StateRail provided access to the fibre connection to the hospital. Without access to the fibre the CSIRO would have been unable to conduct the test.[48]

Tasmanian project - ECHONET

4.44 The CSIRO has also conducted trials of new technologies in other states. The CSIRO developed a broadband telemedicine system to support medical teams attending to patients in the intensive care units of rural hospitals in the Australian state of Tasmania. Known as ECHONET (EchoCardiographic Healthcare Online Networking Expertise in Tasmania) it is still in use today.[49]

4.45 In Tasmania, ICU patients at Northwest Regional Hospital (NWRH) who required specialist services frequently needed to be transferred to other health facilities or even interstate at great cost and at potentially dire risk to the patients' health. CSIRO's research and consultations had shown that conventional telemedicine systems would not be effective treatment for ICU patient needs.

4.46 ECHONET differs as it employs several channels of high quality video and an advanced user interface to permit a specialist in one hospital to interact with the ICU team at another hospital as if they too were in the room with the patient.

4.47 All of the units are identical and can be used as transmitting or receiving stations, allowing specialist and hardware resources to be shared among a number of centres.

4.48 The ECHONET formal clinical trial was conducted between August 2007 and May 2008. This formed the basis of a comprehensive evaluation conducted by CSIRO and the Rural Clinical School of the University of Tasmania. Since completion of the formal trial, the system remains in use in a longer term trial as part of the Tasmanian Department of Health and Human Services' telehealth network.[50]

Victorian example - RIDES

4.49 Another health innovation that the CSIRO has developed is the Remote Immersive Diagnostic Examination System (RIDES). RIDES is a more advanced form of video conferencing as it allows the doctor and patient to maintain the feel of a face-to-face visit. RIDES is a prototype that offers multiple channels of interaction over a broadband network to facilitate a consultation involving multiple parties. For example, the consultation might involve:

- the specialist
- the patient
- the patient's family

[47] Evidence of Dr Alex Zelinsky, CSIRO, Transcript 30 November 2009, p.3.
[48] *ibid.*, p.3.
[49] CSIRO Information and Communication Technologies Centre [http://www.ict.csiro.au/page.php?did=275]
[50] CSIRO [http://www.csiro.au/science/ECHONET.html]

- a clinical assistant with the patient
- clinical observers (who may be in other locations).[51]

4.50 This prototype allows for more than one specialist to be involved in the consultation whilst not being in the same room with the patient or with each other.

4.51 Due to the success of the prototype the CSIRO are now building a mobile version of that health workers could take with them during house calls and visits to regional healthcare clinics. The CSIRO are also developing an advanced image-tracking technology that allows a specialist to draw on a patient. The mark on the patient will remain even if the patient moves. This will work by the system focussing on the area being marked and it will simply track that particular area even if it moves.

4.52 A four-week clinical trial of the RIDES technology was conducted at the Royal Children's Hospital, Melbourne, Australia. Most doctors felt that the system was effective and that they did not require a subsequent face-to-face consultation to verify the accuracy of their diagnosis.[52]

	
A surgeon sits in an office equipped with: • a 3D video viewer • face-to-face camera/screen systems • the hospital's picture archiving and communication system • interactive two tablet display. A view of the patient's clinic is shown on the screen on the wall.	The patient sits with her family in the clinic, which may be at a distant location from the surgeon. An overview video of the surgeon's office is shown on the large display on the wall.

[51] CSIRO Information and Communication Technologies Centre [http://research.ict.csiro.au/mobile/research/labs/autonomous-systems/immersive-environments/rides]

[52] *ibid.*

	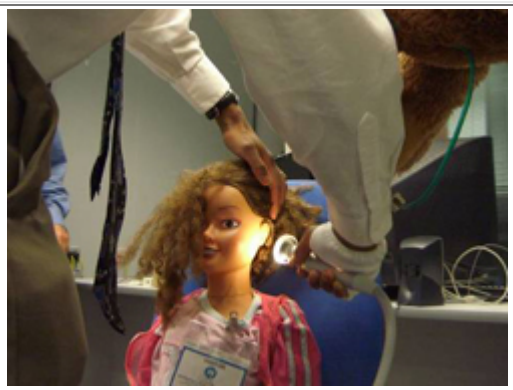
A remotely controlled laser projector is used to point to, and even draw directions on, particular items of interest: in this case, the patient's arm. Knowing precisely which spot is being discussed aids communication, particularly for medical staff who may be asked to attend the patient under the guidance of the surgeon. Also aiding communication, documents are shared between the two sites. Any annotations made on the documents using the Tablet display are immediately visible at both sites.	A hand-held video is used by medical staff on site to allow the surgeon to examine the patient closely. The camera has a tactile feedback (haptic) function controlled by the surgeon so the staff member can feel which way to turn the

Figure 2 RIDES Demonstration[53]

Services to Rural and Regional Areas

4.53 Dr Zelinsky summed up these projects at the 30 November hearing by saying that whilst the speed necessary, 100 megabits per second, was currently difficult to obtain, this would not always be the case. With the NBN roll-out, Dr Zelinsky surmised that the technology would be available for ready use in 5 to 8 years.[54]

4.54 The obvious downfall of these programs is not only the speed but that they were all conducted using fibre. This potentially presents a problem to rural and regional communities which will most likely be using wireless technology to deliver services with the NBN roll-out. A potential solution was raised by Mr Gary Doherty, Director Business Development at the CSIRO during the 30 November 2009 hearing:

> We have come up with a system. This part of the CSIRO holds the core patent for wireless LAN. …. [Dr Zelinsky] has invested further funding into the development of a wireless system that will provide 100 megabits per second full duplex, or both ways, into sparsely populated areas of Australia. We can do this in many cases using the existing broadcasting towers. The CSIRO's interest is in particular in these rural and regional areas is to give them the same quality of service as that delivered in a fibre-to-the-premises environment. This ranges over 40 kilometres to 50 kilometres.
>
> We have also come up with another invention that provides a backhaul microwave. For instance, many microwave links are used in Bathurst and there is now fibre running to Dubbo. In the past much of that was done with microwave as well. Those systems work

[53] *ibid.*

[54] Evidence of Dr Alex Zelinsky, CSIRO, Transcript 30 November 2009, p.9.

> at 250 megabits per second. The system we have developed operates at 10 gigabits per second over the same range. These systems are still under development, but when we combine those two things it brings the cost of delivering 100 megabits per second down considerably in rural and regional areas. That will enable the delivery of these advanced telehealth technologies into rural and in some cases remote areas, but certainly into rural and regional areas.[55]

4.55 The Committee notes the potential benefit of these innovative technologies but acknowledges that implementation is still some time away.

ABC Hubs

4.56 In 2009, the Federal Government announced the provision of $15.3 million in funds for the ABC to set up hubs in 50 of its regional radio stations over the next three years. The aim of the hubs is to create community online portals with content specific to that regional base.[56] The ABC's Managing Director, Mark Scott was quoted in the press as saying:

> This is the creation of a virtual town square, a place where Australians can come together to listen to each other, to learn from each other, to speak and to be heard [57]

4.57 Mr Ben McCarthy, Manager, Strategic Industry Development of the Government Chief Information Office advised the Committee that the Department had consulted with the ABC in relation to the hubs in New South Wales:

> We have had discussions… around what they are planning to do... about potentially working with them on our test bed project, where we may collaborate with them on one of their community online portals.[58]

4.58 The Committee is impressed by the potential for these hubs to change the way people in non-metropolitan communities engage on-line.

Conclusion

4.59 Many trials of new technology are currently being undertaken by a variety of researchers and organisations. It is expected that these new technologies will gradually become more available once the National Broadband Network has been fully implemented.

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[55] Evidence of Mr Gary Doherty, CSIRO, Transcript 30 November 2009, pp. 11-12.

[56] ABC News Radio Launch, Senator the Hon Stephen Conroy Minister for Broadband, Communications and the Digital Economy, 21 September 2009 [http://www.minister.dbcde.gov.au/media/speeches/2009/062]

[57] "ABC hubs:too late to grizzle" Mark Day blog, *The Australian*, 1 June 2009 [http://blogs.theaustralian.news.com.au/markday/index.php/theaustralian/comments/abc_hubs_too_late_to_grizzle]

[58] Evidence of Mr Ben McCarthy, Transcript 30 November 2009, pp. 26-27.

Chapter Five - Current Infrastructure Availability

Issues Raised with the Committee

5.1 Service availability and infrastructure needs continued to be brought to the attention of the Committee in 2009. These issues ranged from lack of services entirely to the still contentious construction of telecommunications towers. The Committee has endeavoured to investigate these problems through briefings, visits of inspections and hearings in an attempt to bring the issues to light and find ways of resolving them.

5.2 A detailed discussion of the types of telecommunications available in Australia can be found in the Committee's last report *Beyond the Bush Telegraph*.[59]

ACMA Report Service Availability

5.3 Each year the Australian Communications and Media Authority (ACMA) produces a report on the level and quality of communications in Australia. The 2009 report did not indicate any significant changes to the availability of services in non-metropolitan New South Wales since the Committee's previous report.

Mobile Service Availability and Coverage

5.4 Despite the call for greater competition and consumer need the number of mobile network carriers has decreased from 2008. In May 2009, the network mobile carriers "3" and Vodafone merged, after approval from the Australian Competition and Consumer Commission (ACCC). The ACCC found that this 50:50 merger would not lessen competition significantly. The mobile network market now sits with Telstra holding 41 per cent of the market, Optus with 33 percent and Vodafone Hutchinson Australia (VHA) with approximately 26 per cent.[60]

5.5 The three mobile network carriers operate the six carrier networks. Each own and operate a Global Systems for Mobile (GSM) and a Wideband Code Division Multiple Access (W-CDMA or 3G) network.[61] Coverage has not changed significantly since the last report.

Satellite Phone Subsidy

5.6 On 5 March 2009, the Federal Government announced changes to the Satellite Phone Subsidy Scheme. This scheme was established to assist people living or working outside of terrestrial mobile phone coverage to be able to purchase satellite mobile phones. Among the changes were additional individual handset subsidies for health and emergency organisations and a subsidy increase of 85 per cent of handset cost up from the previous 65 percent.[62]

5.7 Further changes were introduced on 5 August 2009, most significantly to provide that all people, health and emergency services organisations outside of handheld mobile

[59] *Beyond the Bush Telegraph: Meeting the growing communications needs of rural and regional people*, NSW Standing Committee on Broadband in rural and Regional Communities, March 2008, pp. 11-25.
[60] ACMA, *Communications Report: 2008-09*, 2009 p. 31
[61] *ibid.* p. 32
[62] *ibid.* p. 33

coverage were now eligible for the subsidy. The changes also made it easier for health and emergency organisations to apply.[63]

Internet Service Availability

5.8 By June 2009, the Australian Bureau of Statistics estimated that 8.4 million people subscribed to internet services. This is an increase of 1.2 million from 7.2 million in June 2008. By June 2009, there were approximately 638 internet service providers (ISPs) with DSL proving to be the most provided service in Australia.[64]

Internet Speed

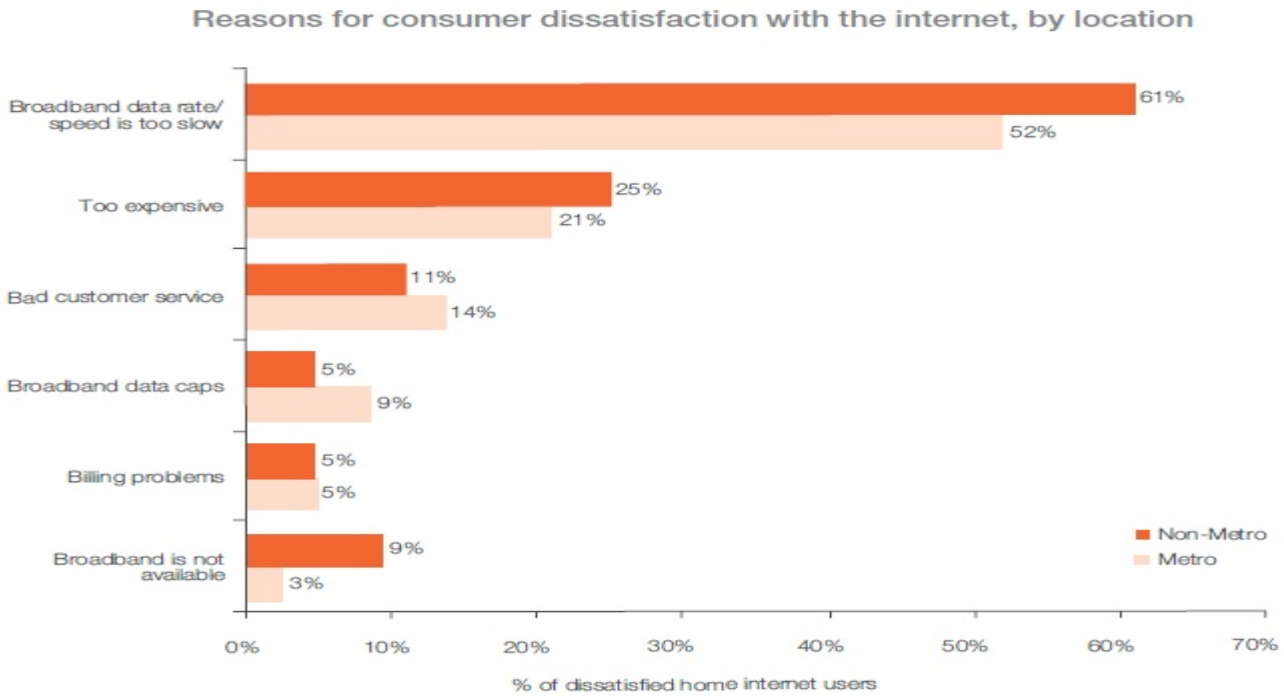
5.9 Telstra currently offers an internet speed of 21 Mbs and plans to upgrade to 42 Mbs through the Next G. By June 2009, mobile wireless made up 23 per cent of all internet subscribers. [65]

Satellite Services

5.10 By July 2009, there were 47 satellite broadband service providers in Australia. Most of the satellite providers are regional ISPs that resell broadband to customers in rural and regional areas.[66]

Satisfaction with internet services

5.11 ACMA reported that satisfaction levels with internet service provision is still lower in non-metropolitan areas than in metropolitan areas as shown in Figure 3 below.



Source: ACMA commissioned consumer survey, April 2009.

Figure 3 Reasons for consumer dissatisfaction with the internet [67]

[63] *ibid.,* p. 33
[64] *ibid.,* p. 34.
[65] *Ibid.*, p. 36.
[66] *Ibid.*, p. 36.
[67] *ibid.*, p.73.

5.12 Consumers in rural and regional areas were unsatisfied with internet speed and the availability of broadband services. However the majority of Australian users were satisfied with their services and pricing. [68]

Palerang Council

5.13 In September 2009, the Committee made a site visit to Bungendore to meet with the Palerang Council. Earlier that year the Palerang Council had vetoed proposed plans to build permanent telecommunications towers in two sites within the area.

5.14 The Local Government Area includes the towns of Braidwood, Bungendore and Captains Flat and the outlying villages of Araluen, Majors Creek, Mongarlowe and Nerriga. It also includes the areas of Wamboin, Burra, Bywong, Hoskinstown, and parts of Sutton, Royalla and Carwoola.

5.15 There is limited mobile phone coverage even within the town of Bungendore despite it being only 40 km from the nation's capital. ADSL is available in the town but not on the rural subdivisions.

5.16 In May 2009, Palerang Council vetoed the construction of a permanent telecommunications tower to be built in Hoskinstown. At that time, Telstra announced it would dismantle the temporary telecommunications tower that had been operating in the area. Telstra warned residents that without the tower customers in that area would notice deterioration or possibly cessation of services that this tower provided.

5.17 Another proposal to build a 25 metre monopole tower in Bungendore including six antennas for the Council was opposed despite the recommendation of council staff that the Development Application be agreed. There was a large amount of community opposition to the visual intrusion and possible health impacts of the tower close to a residential area. Instead the Council resolved to investigate alternative sites for providing its own towers to lease to providers to help whole community.

Council Service Needs

5.18 When the Council was created in 2004 from the amalgamation of most of Yarrowlumla and Tallaganda Shires, there was a commitment to maintaining offices and staff at the same levels in both Bungendore and Braidwood. In order to operate effectively they needed good telecommunications. They noted that the Snowy Mountains Council was also required to maintain offices in Jindabyne and Berridale but because of the availability of the Government Broadband Service in these centres they were able to get good links whereas Palerang Council was not so fortunate.

5.19 The Council suggested that Telstra would charge $800,000 to $900,000 if they were asked to install a network but they learnt that they could build their own microwave link for $100,000.

5.20 The Council was concerned that Federal Blackspots programs are popular as they fill in gaps in services but they lead to ongoing liability for local government, which then become responsible for maintaining the infrastructure. Mr Bascomb, Palerang Council's General Manager, noted that councils do not build assets so much as acquire future liabilities. It costs the Council $45,000 each year to maintain their television towers. They cannot afford to take on new assets unless they get rid of old

[68] *ibid.*, p. 72.

ones especially in straitened financial circumstances and with rate capping limiting their ability to raise additional funds.

5.21 Optus already has a tower in town but Telstra coverage comes from Bungendore Junction, which is 8 km away. The Council rents part of the tower for its microwave link although it is a challenge to angle it through the trees to get to the Council building.

5.22 There had been a proposal for Council to build new towers and lease them to others such as the electricity networks for an income stream but in the current technological environment this is no longer viable. Mr Bascomb considered it was a significant business risk for councils to build towers themselves.

Proposed Tower at Days Hill Bungendore

5.23 Due to planning regulations there was nothing that could be done to prevent Telstra from erecting a larger number of low impact towers as it did at Carwoola for the MOST. At the time of the Committee's visit of inspection, the proposed tower at Days Hill had planning approval, but Telstra did not have a lease to build the tower on the site, which is owned by the Council. The Council noted the new draft State telecommunications planning instrument will streamline arrangements but is unlikely to take the politics out of decisions entirely.

Community needs

5.24 The Council noted that broadband is no longer a luxury for people but a fundamental community service. They believe that relying on the markets to deliver it is a flawed approach. Australia was developed through cross-subsidisation of service costs between urban and regional areas such as when electricity was introduced.

5.25 Many rural people in the area are losing their landlines because the copper network is degrading and this has led to even quite elderly people using VOIP because they have no other option.

5.26 Dr Anne Goonan, a Councillor, noted that they needed to find local solutions and not to just rely on the big carriers for service provision. She cited the example of the tiny centre of Nerriga where there would only be a few customers but it would be very expensive to deliver services there. She suggested that building huge towers in country areas is never going to be commercially viable and therefore low cost local solutions should be investigated.

5.27 Mr Bascomb also noted that the population growth in their area is driven by people moving from Canberra. These people have high expectations of government services when they arrive which cannot be met.

Telstra's response to the Palerang Council decision

5.28 Mr Peter Taylor, Corporate Affairs Manager, Telstra Enterprise and Government noted in his meeting with the Committee that the Council's decision not to allow a tower at Hoskinstown was caused by a range of reasons including concerns about radiation and views but it was a minority view. Since then there has been a community backlash against the Council and the case had been appealed to the NSW Land and Environment Court. Three weeks later the Council had refused to approve a new tower in Bungendore. This was also taken to the Land and Environment Court.

5.29 Mr Chris Taylor, Area General Manager, Telstra Countrywide noted that this level of community objection was unusual in rural areas where they usually just want better services. In his previous role in Newcastle, people were a lot more sensitive about communications towers. Peter Taylor subsequently advised the Committee that both appeals to the Land and Environment Court had been successful.

Issues with Federal funding programs

5.30 Councillor Peter Cockram noted that he had received a grant to install now outmoded satellite services but was ineligible to apply for another grant to upgrade to a cheaper faster service. Dr Goonan detailed how federal funding for broadband was not for infrastructure but for the connection of services. That there was no incentive to install backhaul services and this led to the problems they have now where smaller communities just have satellite services.

Bungendore Local Chamber of Commerce and Industry Inc

5.31 The Committee then met with Mr Andrew Riley, Committee Member of the Bungendore Local Chamber of Commerce and Industry Inc.

5.32 Mr Riley said the Chamber was supportive of the proposed tower at Days Hill, Bungendore and was glad the appeal to the Land and Environment Court had been successful. There had not been that much community opposition but the view of a minority that had carried the vote.

5.33 He noted that a lot of people living in the area either commute to Canberra or run home-based consultancies in research or policy to support government. There are high expectation of service but the coverage is very poor.

5.34 Mr Riley noted that at his property which was within the township Next G services were only intermittently available, 2G services were not available at all but ADSL worked because he was close to the exchange.

5.35 He had consulted with the Chamber of Commerce about their key communications concerns. These were poor mobile service, broadband which was so slow it could take a minute to download a page and patchy Next G coverage. Additionally for more than two-thirds of the distance between Canberra and Bungendore, there is no mobile coverage. Only 9 km outside of Bungendore the only broadband services available are via satellite country.

5.36 Reliability of electricity is still an issue. Mr Riley would like to move his company to Bungendore but he cannot guarantee an uninterrupted power supply and it is unviable to install his own generator.

5.37 Mr Riley considered that Telstra needed to boost its capacity around town as wireless has limitations although it is good for filling in gaps. He considered that a new tower at Days Hill should address many of these problems.

5.38 He suggested that amongst the Chamber there was no great push or desire for high-speed broadband. For most business applications he considered that you do not need very high speed broadband unless for instance you are moving detailed medical images. The drivers for high speed are entertainment, not nation-building applications at this stage. Unless people are doing research at a really high level, a reliable megabit connection really is adequate to meet most people's needs.

Yless4U Pty Ltd

5.39 The Committee also held a meeting with Mr Anthony Goonan, Chief Executive of YLESS4U. This company provides wireless services in rural and remote areas. Its name is derived from a query about why people outside metropolitan areas should receive lesser quality services.

5.40 The company has 35 base stations and more infrastructure in the mountains in the Bungendore area than Telstra has. In particular, it helps senior public servants who live in the area work from home and communicate anywhere in the world. Mr Goonan, the company's CEO, met with the Committee during their visit of inspection in September 2009.

5.41 YLESS4U offers internet plans at 512kbp, 1 Mbps and 1.5 Mbps but the company can make special arrangements for services up to 5Mbps. Mr Goonan indicated that they could provide faster services but the data interconnect fees were too high at the moment and he would need new infrastructure.

Issues with Federal funding programs

5.42 YLESS4U started to install infrastructure for backhaul during the HiBiS program. They had 500 customers under that program but when the Government ran out of money there was only three days notice for the service providers.

5.43 Under the Broadband Connect program, the funding depended on the number of services connected and, as with HiBiS, there was no incentive for building infrastructure.

5.44 The company is not deemed viable enough without Government funding to be included as a provider in the Australian Broadband Guarantee Program.

Rural Wireless services

5.45 A current project is a network plan in the Towong Shire near Wodonga in Victoria. At Towong the Company are developing a plan to deliver 5, 10 and 15 Mbps services to 90 per cent of the population. The plan provides that they can do it with 90 per cent wireless and 10 per cent fibre. This is the reverse of the proportions expected for the rest of the NBN and would use satellite as a last resort for the remainder of the population.

5.46 Mr Goonan noted that he had received no government funding for any of his case studies or proof of concept demonstrations. He queried how two people could essentially cover 6000 km^2 while big carriers did not find it viable.

Access costs

5.47 Mr Goonan reiterated the point made in previous submissions about the high cost of using Crown land for facilities and how the mindset may have been appropriate when there was a single large telecommunications carrier but it should change now. He said it cost $8,000 each year to use disused trigonometric stations, which is too high.

Site visit

5.48 After this meeting the Committee was taken on an inspection of the Molonglo Observatory Synthesis Telescope (MOST). YLESS4U has installed a proof of concept microwave link to Canberra to allow high speed data transfers at 5 Mbps.

The next stage of the project would be to upgrade to 45 Mbps to connect straight to the Australian National University and its high speed internet gateway, AARNET.

5.49 During the 30 November public hearing, Mr Goonan discussed the MOST site saying that:

> MOST has been retrofitted as the prototype to assist in Australia's $1 billion bid for the square kilometre array, it has suffered from a lack of broadband facilities to move the four terabytes that they collect from the universe each evening to the global scientific community. Prior to 2007, magnetic tape was used to transport data to Sydney. In 2007, MOST installed two ADSL circuits 12 kilometres from the local Bungendore telephone exchange and the maximum speed they could get from that was 512 kilobits per second. We have installed five megabits per second and work is progressing on upgrading that to a 20-megabit or 45-megabit per second circuit to commence on 1 January.[69]

5.50 The Committee was then escorted to one of the company's low cost 23 metre towers on private land near Bungendore and then to a site near Eaglehawk Village above a quarry where they had another low-cost facility for delivering internet and television services.

Port Macquarie and Abercrombie Road Service Availability

5.51 During 2009, the Committee also considered the particular service availability issues that raised by two of its members.

Port Macquarie

5.52 Mr Peter Besseling, the Member for Port Macquarie, has a number of regions in his electorate that are having difficulty in obtaining satisfactory telecommunication services.

5.53 On 15 July 2009, Mr Besseling, wrote to the Chair in order to bring his attention to the lack of telecommunication services within his electorate on a new housing estate.

5.54 Innes Lake Estate is a new housing estate with a community of 200 people, which is expected to grow to up to 10,000 over the next ten years. Residents of this community cannot get access to ADSL2. The Committee resolved to forward the letter to Telstra for investigation and were advised that while the residents could not receive ADSL services were available through the Next G network.[70]

5.55 Mr Besseling also raised that lack of services on Lord Howe Island. During the 30 November hearing, Mr Paul Mitchell Group Manager NSW Government from Telstra stated that Lord Howe Island presented difficulties in providing fibre-based broadband services.[71] The Committee understands that residents of Lord Howe Island can only receive broadband via satellite.

Abercrombie Road

5.56 Mr Gerard Martin, the Member for Bathurst, asked Telstra representatives about "blackspots" in his electorate saying that he knew of a tower located at the Jenolan Caves to extend services to tourists and workers at that site but there were other blackspots around his electorate that were not receiving any service at all. He stated

[69] Evidence of Mr Anthony Goonan, YLESS4U, Transcript 30 November 2009, p.31.

[70] Correspondence from Mr Brett Riley, Group Executive Telstra Countrywide 22 September 2009

[71] Evidence of Mr Paul Mitchell, Telstra, Transcript 30 November 2009, p.25.

that, in particular, the Abercrombie Road, between Oberon and Goulburn, has become quite a popular tourist drive since it has been upgraded . Because of the road becoming busier, Mr Martin said that he had received a number of complaints with regards to the lack of service.[72]

5.57 Mr Martin then inquired about the criteria that Telstra uses to determine where a tower goes; whether it was solely by the population of a town or did Telstra look at things like road traffic. In reply Mr Cottrill stated:

> We [Telstra] have a model that looks at the number of people that would benefit from the coverage, the likely traffic, the populations that are permanently there, the sort of traffic that would flow on roads and obviously tourism and the like that flow from that. That road you are talking about has some particular geographic challenges, which tends to be one of the most difficult things we have to deal with. In flat terrain it is very easy to provide mobile coverage and typically you could get 30, 40, perhaps even 50 kilometres radius from a base station for coverage using external antennae and like. But when you get into very hilly country, in and out of valleys, turning through valleys, it is very difficult to provide mobile coverage. It is a combination of things. We would look at populations and traffic on the particular route, the likely numbers of tourists that would gather and also the cost and challenges of putting mobile coverage into such a location. It is a combination.[73]

Telstra Coverage

5.58 During 2009, the Committee had a number of meetings with Telstra, the major provider of telecommunications services in non-metropolitan areas.

Involvement with the Community Broadband Development Fund

5.59 Telstra informed the Committee that they were aware of the Community Broadband Development Fund. When expressions of interest were requested Telstra encouraged several local communities to apply. They investigated whether Telstra could offer a "double whammy" of wireless broadband and 3 G mobile telephony under the program.

5.60 Telstra worked with 40 communities and had worked with about half of the successful communities such as Hill End. They also worked with Bathurst Council to look at how services could be extended to outlying villages in the Shire. They also encouraged Silverton to apply for funding. This is not in the incorporated area and in the absence of a local council they dealt with the business association.

New solutions

5.61 They suggested that one solution for improving services for rural and regional communities would be to come up with smaller technologies. Telstra now has a solution for extending wireless services called the "wireless gateway" which is a device that connects to Next G and then can transmit wireless locally. They are keen to put this technology forward to Lands as an option for delivering the projects under the Community Broadband Development Fund.

5.62 The aerials cost around $250 plus installation costs for wireless broadband which is around $600 or $700 to supply and install in a rural area. Mr Chris Taylor considered that it made more sense to install aerials than setting up a new wireless network at a cost of $70,000 or $100,000.

[72] Mr Gerard Martin, MP, Member for Bathurst, Transcript 30 November 2009, p. 22

[73] Evidence of Mr Andrew Cottrill, Transcript 30 November 2009, p. 23

5.63 Telstra is also currently conducting a trial at Cumnock of a scaled down version of a repeater which is an aerial that piggybacks on the network. This would be a micro-cell so that rather than spending $30,000 to $40,000 on a new network, they can install services for $10,000. If the trial is successful it may lead to rolling out the services nationally.

Next G

5.64 Mr Taylor noted that the use of wireless data was growing fastest in Western NSW. Initially people were reluctant to use it as they were worried about the reliability of Next G so kept their satellite services but now they are more comfortable with it and the satellite services are less available as they filling up so they are moving to Next G. According to Telstra's year-end results there are now 1 million users of wireless broadband services and Next G works well for wireless broadband.

ADSL

5.65 Telstra can now install small devices to extend the availability of ADSL. Each device can service 480 customers. These are installed in new estates as a matter of course but not to fill in gaps in service in other areas because Telstra's preferred solution for people unable to receive terrestrial services is mobile broadband.

Telstra's Local Presence Plan

5.66 Telstra is required to maintain a local presence in rural and regional areas of Australia as part of its licensing conditions.[74] This presence is required as long as it broadly meets Telstra's commercial interests. The local presence plan must detail a range of activities and strategies that the company will deploy in regional and rural areas to meet this obligation.[75]

5.67 ACMA had been notified on the 29 June 2009 that the Minister for Broadband, Communications and the Digital; Economy had approved Telstra's Local Presence Plan 2009. This plan replaced the 2006 plan and will be effective until 2012. According the licence conditions. Telstra is required to report annually on the progress of the Local Presence Plan and how it has successfully met the licence requirements.[76]

Conclusion

5.68 The Committee is grateful for Telstra's continued willingness to participate in discussions.

[74] Carrier Licence Conditions (Telstra Corporation Limited) Declaration 1997 (Amendment No. 2 of 2005).
[75] ACMA, *Communications Report 2008-09*, 2009, p.139.
[76] *ibid.,* p.139.

Chapter Six - Where to Next?

6.1 On 12 November 2009, the Committee resolved to commence two new inquiries. These will allow it to broaden its scope of investigation from infrastructure and the National Broadband Network.

Are you connected? Telecommunications in rural and regional communities

6.2 The first inquiry entitled *Are you connected? Telecommunications in rural and regional communities* will investigate the availability of telecommunications (including broadband) and other technology services in rural and regional communities.

6.3 It will particularly focus on the differences between advertised service availability and what consumers actually receive, gaps of services in particular regions and what options there might be for improving service availability.

6.4 This inquiry will expand on the breadth of material that the Committee has already collected over the past three years with respect to changes in service availability, technological advances and the National Broadband Network roll-out.

Transforming Life Outside Cities: the Potential of Broadband Services

6.5 The second inquiry that the Committee will conduct is entitled *Transforming Life Outside Cities: the Potential of Broadband Services.* This inquiry marks a departure from previous Committee inquiries as it endeavours to broaden the scope to what possibilities new technologies and reliable services could make to rural and regional communities.

6.6 This inquiry will look into the benefits and opportunities for rural and regional communities of having access to telecommunications (including broadband) and other technology services with a particular focus on health, education, commerce, justice and community engagement.

6.7 Submissions to both inquiries were requested by 5 March 2010. The Committee plans to complete both inquiries in the second half of 2010.

Appendix One – Correspondence to the Committee

The Hon **Kristina Keneally** MP
Minister for Planning I Minister for Redfern Waterloo

The Hon. Nathan Rees MP
Premier
Minister for the Arts
Level 40, Governor Macquarie Tower
1 Farrer Place
SYDNEY NSW 2000

M09/142

Dear Premier

Thank you for the opportunity to provide comment on the Standing Committee on Broadband in Rural and Regional Communities report entitled *Beyond the Bush Telegraph: Meeting the Growing Communications Needs of Rural and Regional People.*

The Department of Planning has prepared a draft *Telecommunications Facilities Code including Broadband* (draft Code) which addresses various issues raised by your report, particularly Recommendations Nos. 3 and 10.

This Code, once implemented through an amendment to State Environmental Planning Policy Infrastructure 2007, will assist with the delivery of broadband to rural and remote areas by:

- providing for "new telecommunication towers" as complying development in rural zones (for wireless broadband).
- exempting subscriber connections deployed by satellite terminal antenna or dish (up to certain diameters in size).
- exempting subscriber connections deployed by wire or fibre-optic cable where they are co-located with an underground or above ground electricity supply connection.
- including a siting principle in the draft Code regarding co-location.

The Federal Government has recently announced its roll-out of the National Broadband Network. Consultation with key agencies in relation to the fibre optic roll-out is to take place prior to legislation being introduced into Federal Parliament. The Department has registered for inclusion in such consultation. It will be in a more informed position to comment on Recommendation 8 after the consultation or after the legislation is introduced into Federal Parliament.

Specific comments on the Committee's report have been prepared by the Department and are contained in Attachment 1.

Yours sincerely

The Hon Kristina Keneally MP

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Attachment 1

Standing Committee on Broadband in Rural and Regional Communities
Beyond the Bush Telegraph

Comments

Introduction
The Department of Planning's draft *Telecommunications Facilities Code including Broadband* (draft Code) addresses various recommendations of the Standing Committee on Broadband in Rural and Regional Communities report entitled "Beyond the Bush Telegraph".

The draft Code lists a number of telecommunication facilities that are proposed to be exempt and complying development. Underground cable facilities and boring cables (including fibre optic cables) are both exempt development, and new telecommunication towers in rural areas (for wireless broadband) are proposed to be complying development. Extensions and replacement of telecommunication towers are also provided for under certain conditions. Satellite dishes up to a certain diameter in size are also proposed to be exempt and complying development. This draft Code can be given legal effect through an amendment to *State Environmental Planning Policy Infrastructure 2007*.

The draft Code is supported by the Mobile Carriers Forum which called for a code similar to that which exists in Victoria. It also provides best practice principles for the site selection, design, construction and operation of telecommunication facilities.

The draft Code incorporates the telecommunication facilities contained in the Commonwealth *Telecommunications (Low Impact Facilities) Determination 1997*.

Comments on Recommendations in the Committee's report

Recommendation 3: The Government should work with the Federal Government to ensure the National Broadband Network roll-out gives a high priority to areas currently without terrestrial broadband services.

Comment
The draft Code will assist to implement Recommendation 3 in the following manner:

- **Wireless broadband in rural areas:** The draft Code will assist in the delivery of wireless broadband in rural areas including areas currently without terrestrial broadband services through the provision of "new telecommunication towers" as *complying development* in rural zones.

- **Subscriber connections deployed by satellite terminal antenna or dish:** The existing Commonwealth Telecommunications (Low-impact Facilities) Determination 1997 (Determination) already exempts subscriber connections deployed by satellite terminal antenna or dish up to 1.2 metres in diameter in all areas and 1.8 metres in rural and industrial areas. The draft Code *exempts* subscriber connections deployed by satellite terminal antenna or dish up to 1.8 metres in diameter in all areas (including

rural towns) if not visible from an adjoining property, and 2.4 metres in rural zones if not visible from an adjoining property. The draft Code provides for *complying development* for subscriber connections deployed by satellite terminal antenna or dish in all areas (including rural towns) up to 1.8 metres in diameter if visible from an adjoining property.

Subscriber connection deployed by wire or fibre-optic cable

- The draft Code provides that "A subscriber connection deployed by wire or fibre-optic cable must be co-located with an underground or above ground electricity supply connection and be consistent with the Australian Communications Industry Forum Industry Code ACIF C524:2004 External Communication Cable Networks", is *exempt development.*

Underground cable facilities including fibre optical cables

- The draft Code maintains the existing situation whereby underground cable facilities including fibre optical cables are exempt development under the Determination.

Recommendation 8: The Department of Planning should consider issuing advice to local government about streamlining arrangements for developers wanting to install optical fibre as a voluntary measure and consider ensuring that new developments retain a right of way for subsequent installation of fibre.

Comment

The Minister has previously responded to Paul Gibson, the Standing Committee Chair, on the feasibility of mandating the installation of optical fibre at the time of developments. Since that date the Federal Government has announced its roll-out of the National Broadband Network. The announcement included reference to mandating the use of fibre optic infrastructure to the home and workplace in greenfield estates that are approved after 1 July 2010. The Federal Government intends to consult in relation to this statement and other fibre optic roll-out facilitation measures before legislation is introduced into parliament. Therefore it is considered advisable to defer comment on Recommendation 8 until either after the consultation or after the legislation has been introduced.

Recommendation 10: The Department of Planning should consider the need to review planning advice to local governments to include a requirement that carriers applying for approval to install communications towers demonstrate why they are unable to share existing infrastructure.

Comment

The draft Code supports this recommendation through the inclusion of Principle 2: "Telecommunication facilities should be co-located wherever practical".

Principle 2 states:

(a) Telecommunications lines are to be located, as far as practical, within an existing underground conduit or duct.
(b) Overhead lines and antennas should, where possible, be co-located or attached to existing structures such as buildings, public utility structures, poles, towers or other radio-communications equipment to minimise unnecessary clutter.
(c) Towers may be extended or replaced for the purposes of co-location.

(d) The proponent must demonstrate that either co-location is not practicable, or that the proposed new macrocell base station will result in less visual impact or will have less environmental impact.

In order for a proposed development to be either exempt or complying development proposals must be consistent with the principles of the draft Code, amongst other matters.

SENATOR THE HON STEPHEN CONROY

MINISTER FOR BROADBAND, COMMUNICATIONS AND THE DIGITAL ECONOMY
DEPUTY LEADER OF THE GOVERNMENT IN THE SENATE

30 JUL 2009

Paul Gibson MP
Committee Chair,
Standing Committee on Broadband in Rural
and Regional Communities
Parliament of New South Wales
Macquarie Street
SYDNEY NSW 2000

Dear Mr Gibson

Report: Beyond the Bush Telegraph

Thank you for your letter dated 3 April 2009 concerning the report released by the New South Wales Legislative Assembly's Standing Committee on Broadband in Rural and Regional Communities titled *Beyond the Bush Telegraph: Meeting the Growing Communications Needs of Rural and Regional People*. I apologise for the delay in replying.

The Australian Government is committed to a prosperous and sustainable regional Australia, one that enables families, businesses and schools in regional communities to actively participate in Australian society and recognises the importance of access to an appropriate level of telecommunications services in facilitating this commitment. I welcome the work of the Standing Committee and their report.

I understand that as a part of your deliberations, you met with the Regional Telecommunications Independent Review Committee, chaired by Dr Bill Glasson AO. The Review was established to independently assess the adequacy of telecommunications services in regional, rural and remote parts of Australia. In particular, the Review noted the role of telecommunications in supporting the sustainability of our regions by:

- enabling improved access to health, education and emergency services;
- facilitating greater participation and interaction for people living and working in more remote locations, especially remote Indigenous communities; and
- providing regional Australians with an assurance that they will able to access telecommunications services appropriate to their personal and business needs.

The Review recommended that $40 to $60 million be spent on the Government's initial response to the report. The Government agreed with this recommendation and has developed a number of funded initiatives in response to the recommendations of the Review, including:

- a $46 million Digital Regions Initiative to fund innovative broadband applications for improved education, health and emergency services, which will be delivered through collaboration between all tiers of government;

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- $11.4 million to continue and enhance the subsidies available under the Satellite Phone Subsidy Scheme to improve the affordability of mobile communications for people living and working in areas without terrestrial mobile coverage, by providing increased subsidies for the purchase of satellite phone handsets; and
- an additional $3.7 million for the $30 million refocused Indigenous Communications Program to improve essential telecommunications services, basic public internet access and computer training, to ensure remote Indigenous communities receive greater access to enhanced and more flexible solutions to address their telecommunications needs.

I note that reference is made to my Department in your report in Recommendation 13: *Through appropriate intergovernmental channels, the Government should encourage the Federal Department of Broadband, Communications and the Digital Economy to publicise information about the Broadband Service Locator and Provider Data Speed testing more broadly such as by regularly advertising in the rural and regional press.*

The Regional Telecommunications Review calls for a high level of collaboration between all tiers of Government in addressing specific telecommunications issues in regional areas. The Government recognises the importance of a collaborative approach and has committed to working with state, territory and local governments, as well as industry and consumer groups in implementing its response to the Review.

I also note that Recommendation 3 of your report refers to the National Broadband Network. On 7 April 2009, the Government announced it would establish a new company to build and operate a new superfast National Broadband Network. The Government has indicated that it will encourage private investment in the new network, and the company will invest up to $43 billion over eight years to fund the rollout and ongoing operations of the network.

The new network will connect homes, schools and workplaces with optical fibre—fibre to the premises (FTTP)—providing broadband services to Australians in urban and regional towns with speeds of 100 megabits per second, 100 times faster than those currently used by most people, extending to towns with a population of around 1000 or more. All other premises in Australia will be connected with next generation wireless and satellite technologies that will be able to deliver 12 megabits per second or more to people living in more remote parts of rural Australia.

Furthermore, the Government has announced that it will be conducting an implementation study to determine the operating arrangements, detailed network design and ways to attract private sector investment in the new National Broadband Network. The implementation study is due to report in early 2010. I expect there will be opportunities for consultation and stakeholder input as the implementation study progresses.

The Government has also announced that the National Broadband Network initiative will provide fibre optic backhaul transmission links connecting cities, major regional centres and rural towns.

Within this, the Government has announced that it will invest up to $250 million as an immediate step to address priority regional backbone blackspots in Australia.

The Government expects that its decision to invest in regional transmission services will:

- in the short to medium term, deliver an immediate economic stimulus and achieve better service outcomes for regional consumers, including reduced costs;
- in the medium to long term, contribute to the roll-out of the National Broadband Network; and
- contribute to other Government initiatives such as the $46 million Digital Regions Initiative, which is a key element of the Government's response to the Regional Telecommunications Review.

The Government recently released a stakeholder consultation paper to provide a framework for all stakeholders to engage constructively on the issues associated with rolling out this initiative.

Submissions to the consultation paper closed on 12 May 2009 and public submissions in response to the consultation paper are available from the Department's website. Submissions came from a broad cross section, including carriers, service providers, telecommunications equipment vendors, utility and rail companies, state, territory and local governments, construction firms, business representative bodies, and private individuals. The New South Wales Government has been involved in the consultation process through a submission from the Department of Lands.

A competitive process is expected to commence shortly with a view to enabling construction of priority backbone infrastructure to begin quickly.

I note that your report suggests possible changes to the current telecommunications regulatory environment. On 7 April 2009, the Government released a discussion paper titled *National Broadband Network: Regulatory Reform for 21st Century Broadband.* The paper discusses possible reforms to the current telecommunications access regime and consumer safeguard framework. The Government wants to make the current framework work more effectively, including during the transition to the National Broadband Network. Submissions to this discussion paper were due by 3 June 2009. The outcomes of this process will inform the Government in considering key options for reform, including:

- promoting greater competition across the telecommunications industry;
- addressing competition and investment issues arising from horizontal integration of fixed-line and cable networks, and telecommunications and media assets; and
- improving universal access arrangements for telephony and payphones.

Further information on the discussion paper can be located at:
www.dbcde.gov.au/communications_for_business/funding_programs__and__support/national_broadband_network/regulatory_reform_for_21st_century_broadband

The Government is now considering all submissions before moving forward.

As part of the 2009-10 Budget, the Government announced the Rural and Regional National Broadband Network Initiative. In addition to the further $14 million for the Digital Regions Initiative, this $80.3 million initiative includes:

- $15.3 million additional funding to the Australian Broadband Corporation (ABC), to encourage the development of user generated content and create online avenues for local communities to connect and collaborate; and
- $5 million for Rural National Broadband Network Coordinators.

This initiative complements the National Broadband Network by supporting programs which will promote the delivery and take-up of broadband services in regional areas.

In addition, the Government has allocated $250.8 million over four years until 2012 to fund the *Australian Broadband Guarantee*. The *Australian Broadband Guarantee* provides all Australian residential and small business premises with access to broadband services that reasonably compare to broadband services available in metropolitan areas.

Further information on the Regional Telecommunications Review and these Government initiatives can be found at *www.dbcde.gov.au*.

Thank you for bringing the outcomes of your report to my attention. I trust the information I have provided will be of further assistance.

Yours sincerely

Stephen Conroy

Stephen Conroy
Minister for Broadband,
Communications and the Digital Economy

Appendix Two – List of Witnesses

Monday, 30 November 2009 – Parliament House

Organisation	Witness
CSIRO Information and Communication Technologies Centre	Dr Alex Zelinsky Director Ms Narelle Clark Research Director, Networking Mr Gary Doherty Manager, Strategy
Department of Services, Technology and Administration Government Chief Information Office	Mr Colin Griffith General Manager, Strategy Mr Ben McCarthy Manager, Strategic Industry Development
Telstra Corporation	Mr Paul Mitchell Group Manager, NSW Government Ms Lucy Wicks Corporate Affairs Manager NSW/ACT Mr Andrew Cottrill Area General Manager, Country Wide
Yless4u Pty Ltd	Mr Anthony Goonan Chief Executive Officer

Appendix Three – Visits of Inspection

Telstra Experience Centre

On 13 March 2009, the Committee made a visit of inspection to the Telstra Experience Centre in the Sydney CBD.

Organisation	Name
Telstra Experience Centre	Mr Brett Riley, Executive Director, NSW of Telstra CountryWide Mr Paul Mitchell, Group Manager, NSW Government Ms Susi Steigler-Peters, National Industry Executive, Education, Industry Marketing Ms Bernadette Gibbons, Head of Health, Industry Marketing.

Canberra and Bungendore

On 15 and 16 September 2009, a delegation of the Standing Committee on Broadband in Rural and Regional Communities, consisting of Mr Martin, Mr Besseling and Mr Stewart accompanied by the Committee Manager. The Committee held five meetings altogether, meeting with relevant Federal and local government bodies, representatives of the community and communication companies.

The Committee held discussions with the following people:

Organisation	**Name**
Department of Broadband, Communications and the Digital Economy	Mr Richard Windeyer, First Assistant Secretary National Broadband Network Strategy,
Telstra Countrywide	Mr Chris Taylor, Area General Manager, Capital South East Region Mr Peter Taylor, State Corporate Affairs Manager – NSW and ACT Public Affairs Manager – Telstra Enterprise and Government.
Palerang Council	Cr Walter Raynolds (Mayor) Cr Dr Ann Goonan Cr Howard Crozier Cr Paul Cockram Mr Peter Bascomb General Manager, Palerang Council
Bungendore Local Chamber of Commerce and Industry Inc	Mr Andrew Riley, Committee Member, Bungendore Local Chamber of Commerce and Industry Inc.
YLESS4U	Mr Anthony Goonan, Chief Executive Officer Mr Robin Eckerman

Appendix Four – Minutes

Minutes of Proceedings of the Standing Committee on Broadband in Rural and Regional Communities (no. 2 of 2009)
9.00 am, 2 April 2009
Room 1254, Parliament House

Members Present
Mr Gibson, MP (Chair)
Mr Besseling, MP
Mr Harris, MP
Mr Provest, MP

Apologies
Mr Constance, Mr Martin and Mr Stewart

Minutes
Resolved, on the motion of Mr Harris, seconded by Mr Provest:
That the minutes of the meeting on 13 March 2009 be confirmed.

Change in membership
The Committee noted the appointment of Mr Stewart to the Committee in place of Mr Whan, discharged.

Visit of inspection
The Committee considered the report of the visit of inspection to the Telstra Experience Centre on 13 March 2009.

Briefing from Office of Rural Affairs
The Committee admitted Ms Fran Schonberg, Manager, Office of Rural Affairs. She provided the Committee with an update on the delivery of the Community Broadband Development Fund. The Committee requested information about the communities that had expressed interest in the program.

The Committee adjourned at 9.30 am until 9.00 am on Thursday 7 May 2009.

Minutes of Proceedings of the Standing Committee on Broadband in Rural and Regional Communities (no. 3)
9.10 am, 7 May 2009
Room 1254, Parliament House

Members Present
Mr Gibson, MP (Chair)
Mr Besseling, MP
Mr Constance, MP
Mr Harris, MP
Mr Provest, MP

Apologies
Mr Martin and Mr Stewart

Minutes
Resolved, on the motion of Mr Besseling, seconded by Mr Provest:
That the minutes of the meeting on 2 April 2009 be confirmed.

National Broadband Network Announcement
The Committee discussed recent Commonwealth announcements about the National Broadband Network and related regulatory reforms. It noted:

- Text of an address by Senator Conroy, the Minster for Broadband, Communications and the Digital Economy to the National Press Club 28 April 2009; and
- Correspondence from the Chair to Minister Conroy and between the Chair and Minister Tebbutt in relation to implications of the National Broadband Network on rural and regional communities in New South Wales.

The Committee deliberated on the implications of these announcements on its work program. The Chair undertook to seek a briefing from relevant state and federal agencies.

CeBIT Australia conference
Mr Harris informed the Committee that he would be attending a conference on IT and Innovation at the CeBIT Australia exhibition at Darling Harbour the following week and suggested that other members might find such events helpful for learning about the benefits of technology for rural and regional communities. He noted that CeBIT Australia holds a conference every year. The Committee agreed that if members were interested in attending this should be arranged if possible.

The Committee adjourned at 9.20 am until 9.00 am on Thursday 4 June 2009.

Minutes of Proceedings of the Standing Committee on Broadband in Rural and Regional Communities (no. 4)
9.00 am, 4 June 2009
Room 1254, Parliament House

Members Present

Mr Gibson, MP (Chair)	Mr Martin MP
Mr Besseling, MP	Mr Provest, MP
Mr Constance, MP	Mr Stewart MP
Mr Harris, MP	

Minutes
Resolved, on the motion of Mr Provest, seconded by Mr Harris:
That the minutes of the meeting on 7 May 2009 be confirmed.

New Member
The Chair welcomed Mr Stewart as a member of the Committee.

Correspondence
The Committee noted correspondence from:
1. Hon Kristina Keneally MP, Minister for Planning responding to the Committee's report; and

2. Hon Phillip Costa MP, Minister for Regional Development responding to the Committee's letter in relation to the Community Broadband Development Fund.

Consultation document
The Committee noted the Federal Government's "National Broadband Network: Fibre to the premises in Greenfield estates: Consultation paper."

Recent Developments in telecommunications
The Committee deliberated on the implications of recent media stories about lack of telecommunications and broadband services in the Jindabyne and Palerang region and agreed to arrange a visit to the area to meet with affected communities and if possible to meet representatives of the Federal government in late July or early August.

Mr Gibson informed the Committee that Senator Conroy's office had agreed to brief the Committee in the next few weeks.

The Committee adjourned at 9.15 am until 9.00 am on Thursday 3 September 2009.

Minutes of Proceedings of the Standing Committee on Broadband in Rural and Regional Communities (no. 5)
10.30 am, 26 June 2009
Room 1254, Parliament House

Members Present

Mr Gibson, MP (Chair)	Mr Harris, MP
Mr Besseling, MP	Mr Provest, MP

Apologies
Apologies were received from Mr Constance, Mr Martin and Mr Stewart.

Minutes
Resolved, on the motion of Mr Provest, seconded by Mr Harris:
That the minutes of the meeting on 4 June 2009 be confirmed.

Recent Developments in telecommunications
The Committee noted recent developments in telecommunications policy and programs.

Briefing on Rural Broadband Provision
The Committee welcomed Dr John Ellershaw, Centre for Ultra-Broadband Information Networks (CUBIN), University of Melbourne who provided a briefing on his research into the feasibility of using Passive Optical Networks to deliver broadband services in rural areas.

The Committee adjourned at 11.25 am until 9.00 am on Thursday 3 September 2009.

Minutes of Proceedings of the Standing Committee on Broadband in Rural and Regional Communities (no. 6)
9.00 am, 10 September 2009
Room 1254, Parliament House

Members Present

Mr Martin, MP (A/g Chair)	Mr Harris, MP
Mr Besseling, MP	Mr Provest, MP
Mr Constance, MP	Mr Stewart, MP

Apologies

Apologies were received from Mr Gibson. In the absence of Mr Gibson, Mr Martin, chaired the meeting.

Minutes

Resolved, on the motion of Mr Harris:
That the minutes of the meeting on 26 June 2009 be confirmed.

Response to Committee report

Resolved on the motion of Mr Stewart, seconded by Mr Harris
That the Committee note the correspondence from Senator the Hon Stephen Conroy, Minister for Broadband, Communications and the Digital Economy of 30 July 2009 responding to the Committee's report Beyond the Bush Telegraph.

Recent Developments in telecommunications

Resolved on the motion of Mr Stewart, seconded by Mr Harris
That the Committee note recent developments in telecommunications policy and programs.

Australia's Digital Economy: Future Directions,

Resolved on the motion of Mr Harris, seconded by Mr Stewart
That the Committee note the summary of the final report on Australia's Digital Economy by the Department of Broadband, Communications and the Digital Economy

Visit of inspection to Canberra and Bungendore – 15-16 September

The Committee discussed arrangements for the visit. It noted that while Mr Gibson was no longer able to attend, Mr Stewart was now likely to be available.

Briefing on Community Broadband Development Fund

Ms Fran Schonberg of the Office of Rural Affairs provided the Committee with a progress report on the implementation of the Community Broadband Development Fund.

Correspondence from Mr Besseling

The Committee discussed Mr Besseling's correspondence of 15 July 2009 in relation to lack of broadband services in the Innes Lake subdivision in the Port Macquarie area and confirmed with Ms Schonberg that this area would not be eligible for funding under the Community Broadband Development Fund.

Resolved on the motion of Mr Besseling, seconded by Mr Stewart

That the correspondence from Mr Besseling to the Committee be brought to the attention of Telstra.

The Committee adjourned at 9.25 am until 9.00 am on Thursday 22 October 2009.

Appendix Four

Minutes of Proceedings of the Standing Committee on Broadband in Rural and Regional Communities (no. 7)
9.00 am, 29 October 2009
Room 1254, Parliament House

Members Present

Mr Gibson, MP (Chair)
Mr Besseling, MP
Mr Constance, MP
Mr Harris, MP
Mr Provest, MP

Apologies

Apologies were received from Mr Martin and Mr Stewart.

Minutes

Resolved, on the motion of Mr Provest, seconded by Mr Harris:
That the minutes of the meeting on 10 September 2009 be confirmed.

Visit of inspection to Canberra and Bungendore

The Committee noted the report of the delegation's visit of inspection to Canberra and Bungendore on 15 and 16 September.

Digital Regions Initiative

The Committee noted the summary of the progress of the Federal Government's Digital Regions Initiative.

Attendance at upcoming relevant conferences

The Committee discussed attending the Communications Policy and Research Forum, 19-20 November or the Telecommunications Regulatory Reform Forum and National Broadband Network Summit, 8-9 December and agreed that interested members would advise the secretariat.

Future hearing dates

The Committee agreed to hold a hearing on either 23 or 30 November to learn about progress of the National Broadband Network and other government programs.

Inquiry topic for 2010

The Committee discussed commencing a new inquiry in 2010 and agreed to develop terms of reference to examine the potential for e-commerce in rural and regional communities, including health and education services.

Recent Developments in Telecommunications

The Committee noted the summary of recent developments in telecommunications policy and programs.

Briefing by, Savvy Connect

The Committee welcomed Mr Douglas Golding and Mr Lionel Sonntag who described SavvyConnect's work with local councils to install wifi broadband networks in Bega and Lane Cove.

The Committee adjourned at 9.45 am until 9.00 am on Thursday 12 November 2009.

Minutes of Proceedings of the Standing Committee on Broadband in Rural and Regional Communities (no. 8)
9.00 am, 12 November 2009
Room 1254, Parliament House

Members Present

Mr Gibson, MP (Chair)	Mr Martin, MP
Mr Besseling, MP	Mr Provest, MP

Apologies
Apologies were received from Mr Constance, Mr Harris and Mr Stewart.

Minutes
Resolved, on the motion of Mr Provest, seconded by Mr Besseling
That the minutes of the meeting on 29 October 2009 be confirmed.

Correspondence
The Committee noted correspondence from Telstra relating to Mr Besseling's concerns about broadband services in the Port Macquarie area. Mr Besseling advised that he had met Telstra's local representative who suggested that residents in the area should receive broadband by wireless services.

Attendance at upcoming relevant conferences
The Committee discussed attendance at

- the Communications Policy and Research Forum,
- the Telecommunications Regulatory Reform Forum and National Broadband Network Summit and
- Realising Our Broadband Future

Resolved on the motion of Mr Besseling, seconded by Mr Martin
That as many members as wanted to could attend one of the conferences.

Future hearing date
The Committee agreed to hold a hearing on 30 November to learn about progress of the National Broadband Network and other government programs.

Inquiry topic for 2010
The Committee discussed the inquiry proposed in the discussion paper circulated and proposed in addition to investigate the availability of telecommunications services in rural and regional services.

Resolved on the motion of Mr Provest seconded by Mr Martin

That the Committee conduct an inquiry into the benefits and opportunities for rural and regional communities of having access to telecommunications (including broadband) and other technology services with a particular focus on:
a) improving government services and efficiency in service delivery, including in the areas of education, health and justice services

b) improving the level of engagement of rural and regional communities in public life through new technologies
c) investigating the potential economic benefits from new technology on commercial and business opportunities in rural and regional communities.

Resolved on the motion of Mr Besseling seconded by Mr Martin
That the Committee conduct an inquiry into the availability of telecommunications (including broadband) and other technology services in rural and regional communities with a particular focus on:
(a) Differences between advertised service availability and consumer experiences of service levels
(b) Gaps in service provision in particular regions and
(c) Options for improving service availability

Recent Developments in Telecommunications
The Committee noted the summary of recent developments in telecommunications policy and programs.

The Committee adjourned at 9.20 am until Monday, 30 November 2009.

Minutes of Proceedings of the Standing Committee on Broadband in Rural and Regional Communities (no. 9)
10.45 am, 30 November 2009
Room 814/815, Parliament House

Members Present
Mr Gibson, MP (Chair)
Mr Besseling, MP
Mr Constance, MP
Mr Martin, MP
Mr Provest, MP

Apologies
Apologies were received from Mr Harris and Mr Stewart.

Minutes
Resolved, on the motion of Mr Martin, seconded by Mr Besseling
That the minutes of the meeting on 12 November 2009 be confirmed.

Communications Policy and Research Forum
The Committee noted that two members of the secretariat had attended the first day of the annual Communications Policy and Research Forum on 19 November and that the papers were now available.

Proposed meeting dates for 2010
The Committee agreed to hold meetings in 2010 on the following Thursdays at 9:00 am

25 February
18 March
22 April
20 May
3 June
9 September

28 October
25 November

Public Hearing

The Chair opened the public hearing.

CSIRO Information and Communications Technologies Centre
Dr Alex Zelinsky, Director, ICT, Ms Narelle Clark, Research Director Networking and Mr Gary Doherty, Director, Business Development were affirmed and examined

In support of his evidence, Dr Zelinsky tabled two documents entitled:
"Broadband technology bringing specialist healthcare to regional communities" and
"Broadband for Australia".

Ms Clarke tabled a document entitled "Controlling mines from a distance."

Mr Doherty and Dr Zelinsky undertook to provide additional information in response to questions and invited the Committee to a briefing on research by the CSIRO's ICT Centre.

Evidence completed, the witnesses withdrew.

Government Chief Information Office, Dept of Services, Technology and Administration
Mr Colin Griffith, General Manager of Strategy and Mr Ben McCarthy, Manager, Strategic Industry Development were affirmed and examined.

Mr Griffith and Mr McCarthy offered to provide additional information in response to questions.

At 12:35 the Committee adjourned for lunch and resumed at 1:00 pm.

Telstra
Mr Andrew Cottrill, Area General Manager, Riverina Murray, Telstra Country Wide, Ms Lucy Wicks, NSW Corporate Affairs Manager and Mr Paul Mitchell, Group Manager NSW Government, Telstra Enterprise and Government were sworn and examined

All witnesses agreed to provide additional information in relation to questions.

In support of Telstra's evidence, Ms Wicks tabled a document entitled "Telstra: a Great Australian Company" dated 30 October 2009.
Evidence completed, the witnesses withdrew.

YLESS4U Pty Ltd

Mr Anthony Goonan, Chief Executive Officer was sworn and examined.

Evidence completed, the witness withdrew.

The Committee adjourned at 2.18 am until Thursday 25 February 2010.

Appendix Four

Relevant Extracts from Minutes of Proceedings of the Standing Committee on Broadband in Rural and Regional Communities (no. 1)
9.00 am, 25 February 2010
Room 1254, Parliament House

Members Present

Mr Gibson, MP (Chair)
Mr Martin, M
Mr Constance, MP
Mr Harris, MP
Mr Provest, MP
Mr Stewart

Apologies
Apologies were received from Mr Besseling, MP.

Minutes
Resolved, on the motion of Mr Martin, seconded by Mr Provest:
That the minutes of the meeting on 30 November 2009 be confirmed.

The Committee adjourned at 9.13 am until 9.00 am on Thursday 18 March 2010.

Relevant Extracts from Minutes of Proceedings of the Standing Committee on Broadband in Rural and Regional Communities (no. 2)
9.00 am, 11 March 2010
Room 1254, Parliament House

Members Present

Ms Hornery, MP
Mr Martin, MP
Mr Besseling, MP
Mr Harris, MP
Mr Provest, MP

Apologies
Apologies were received from Mr Constance, MP and Mr Stewart

Acting Chair
In the absence of a Committee Chair, the Deputy Chair took charge of the meeting.

Change in Committee membership
The Deputy Chair reported that on 25 February 2010 Mr Gibson was discharged from the Committee and Ms Hornery had been appointed to serve in his place. The Deputy Chair welcomed Ms Hornery to the Committee.

Election of Chair
There being a vacancy in the position of Chair, the Deputy Chair called for nominations for a new Chair. Ms Hornery was nominated.
Resolved, on the motion of Mr Martin, seconded by Mr Provest:
That Ms Hornery be elected Chair of the Committee.

Minutes
Resolved, on the motion of Mr Martin, seconded by Mr Provest:

That the minutes of the meeting on 25 February 2010 be confirmed.

The Committee adjourned at 9.26 am until 9.00 am on Thursday 18 March 2010.