

26 October 2007

Telstra CountryWide

Standing Committee on Broadband in
Rural and Regional Communities

Parliament House
Macquarie Street
Sydney NSW 2000

Attention: Mrs Cheryl Samuels

Fountain Plaza
Level 14, 231 Elizabeth Street
Sydney NSW 2000
Australia

Telephone 02 9206 0049
Facsimile

Brett.Riley@team.telstra.com

Telecommunications in regional and rural NSW

Overview: Telstra in NSW

Every day, Telstra successfully delivers a range of communications and information services across New South Wales (NSW) in a market featuring strong competition.

We have a major presence in NSW through our telephone networks and exchanges, our investment in buildings and land, and our people. Telstra delivers a full range of telecommunication services to meet the needs of NSW residents, including:

- Basic telephone access services to homes and businesses
- Local and long-distance telephone call services
- Mobile telecommunications services
- High speed internet and data services
- Management IT in the business sector
- Advertising, directories and information services; and
- Cable television distribution services.

The provision of telecommunication services to NSW requires a complex network of exchanges and transmission sites to connect customers throughout the State. We provide these services through a range of technologies, including copper cable, optical fibre, wireless and satellite.

Telstra is the only telecommunications provider with a significant regional presence in NSW. Around 2990 regional employees¹ live and work in 100 cities and towns, building and maintaining the Telstra network and serving customers.

A large number of regional centres have more than twenty Telstra employees per location, including Albury, Armidale, Ballina, Bathurst, Campbelltown, Dubbo, Goulburn, Gosford, Grafton, Casino, Hamilton, Kempsey, Lismore, Maitland, Mayfield, Newcastle, Nowra, Orange, Penrith, Port Macquarie, Singleton, Tamworth, Tweed Heads, Wagga Wagga, Wollongong and Wyong.

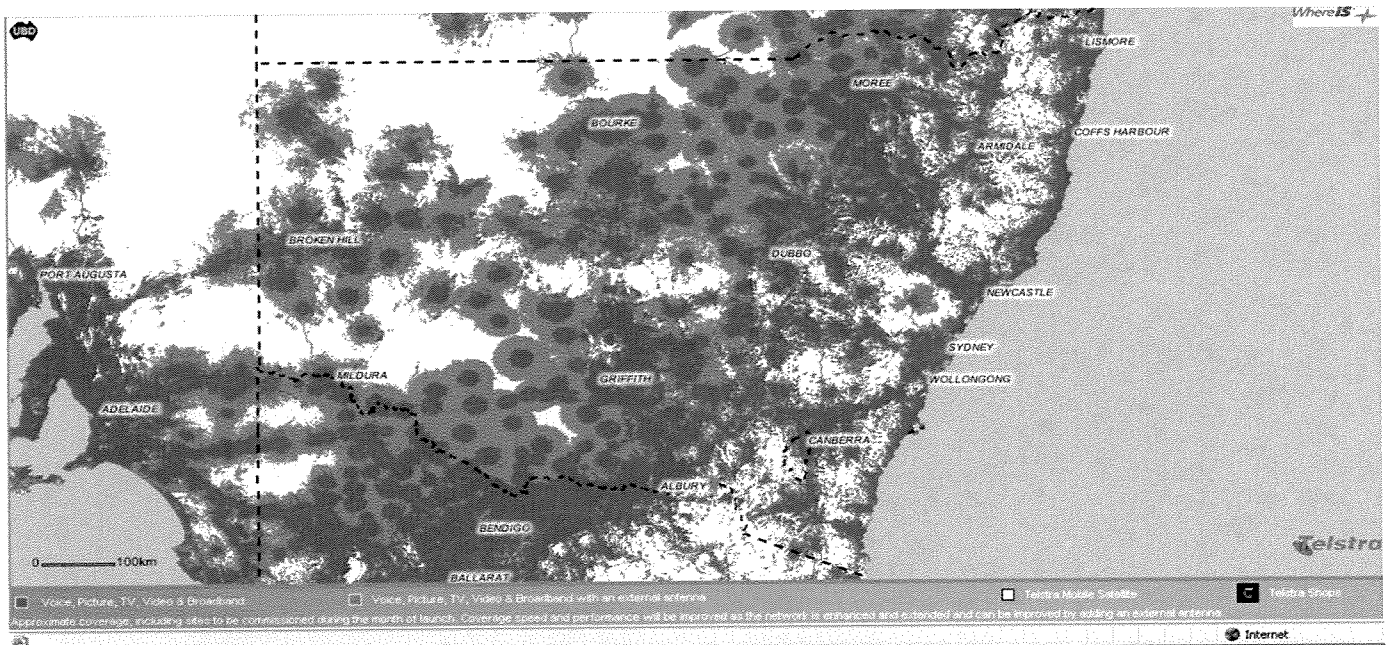
¹ As of 30 June 2006.

Telstra's mobile coverage in regional and rural NSW

Telstra launched its Next G™ network in October 2006. The Next G™ network covers over 2 million square kilometres of the Australian landmass, compared to the aging CDMA network, which only covers around 1.6 million square kilometres. Telstra's Next G™ network provides mobile coverage to 98.9% of the Australian population.

The Next G™ network brings many services and applications to regional and rural NSW that are not available on the CDMA network. In addition to voice calling and SMS, customers on the Next G™ network can access the following services on their mobile:

- Video calling;
 - MMS;
 - High-speed internet and email;
 - Foxtel and BigPond TV;
 - WhereIs and Sensis search pages;
 - Weather and news,
- as well as many other additional features.



Telstra's Next G™ network coverage in NSW²

² **Website address:** <http://www.telstra.com.au/mobile/networks/coverage/maps.cfm>.

Disclaimer: Customers should be aware that the Telstra wireless coverage maps displayed have been created using tools that predict the likely areas of coverage. Not every particular location within the identified coverage areas has been individually tested for coverage. This means that while the footprint of coverage outlined on the maps is generally accurate, there will be specific areas described as being within a coverage area where a customer's device will not work. This is a common characteristic of wireless systems. For example, coverage could be degraded or not existent in specific locations due to certain physical structures or geographic features. Physical structures which may block or inhibit coverage could include basements, lifts, underground car parks, concrete buildings, tunnels and road cuttings. Geographic features which may block or inhibit coverage could include formations such as hills and mountains or even trees. Customers should also be aware the Telstra wireless coverage maps also may indicate planned coverage expansions of the Telstra wireless network. Coverage planned for the future is based on Telstra's rollout schedule. Telstra reserves the right to modify this schedule without notice, as required from time to time. Data speeds experienced on Telstra's wireless networks may be affected by network availability, the type and configuration of customer equipment, the performance of external networks (for example the Internet), the signal strength of the device used and other factors such as the type of application being used.

The closure of the CDMA network

Telstra's digital CDMA network is scheduled to close on 28 January 2008. Telstra has publicly committed that it will not switch off the CDMA network until the Next G™ network offers the same or better coverage.

Following extensive testing by Telstra and our strategic partner Ericsson, Telstra announced on 15 October 2007 that this milestone had been met. The Next G™ network now offers the same or better coverage than the CDMA network. Further, the Next G™ network covers 25 per cent more territory than the CDMA network, has around 2,500 more towers, offers speeds up to five times faster, and enables international roaming to over 160 more countries

Telstra is working with our customers in regional and rural NSW to ensure they switch over to the Next G™ network prior to the closure of the CDMA network.

Next G™ handsets and coverage in regional and rural NSW



Different mobile devices have different capabilities and how each device performs on the network is dependent on both the network coverage and the particular device. Telstra is working with customers at the point of sale to help them make the right purchase decisions.

To make it easier for customers to select the right device, Telstra has introduced a 'Blue Tick' for those devices that are 'recommended for rural handheld coverage'. These handsets are recommended for customers who want to maximise their coverage experience. This may be because they live or work outside of regional centres and towns, or in rural locations, or simply need a device with the maximum coverage capability. There are both pre-paid and post-paid handsets with the tick indicating they are 'recommended for rural handheld coverage'.

In order to get the best out of the Next G™ network it is important that CDMA network customers do a 'like for like' upgrade of their mobile handset as well as any equipment they may use (i.e. car kits and external antennas). For this reason, Telstra has put in place a proactive campaign to assist customers in upgrading their mobile phones and accessories.

Telstra's broadband networks in regional and rural NSW

Provision of broadband in NSW involves a mix of access technologies, including ADSL, cable, wireless and satellite.

Telstra is providing much of the infrastructure for the delivery of internet throughout NSW and is continuing to invest in both fixed and wireless mobile networks to expand the availability and capability of fast internet access.

ADSL: Telstra's ADSL network of 2400 enabled exchanges, including 780 across NSW, now provides speeds of up to³ 8Mbps compared with 1.5Mbps previously. In addition, speeds of up to 20Mbps may also be available using ADSL2+ technology which is being

³ The reason that the term 'up to' is used is because speeds on ADSL may vary due to factors including network configuration, line quality and length, exchange type, customer premises interference, internet traffic and equipment.

utilised in exchanges where competitors have installed similar equipment. Telstra's ADSL network reaches approximately 90% of the NSW population.

Telstra Velocity™: Telstra Velocity™ is a fibre technology product that allows access to high-speed broadband of up to 20Mbps, digital free-to-air television and up to four phone lines to operate at the same time without any loss in speed or quality. It is available through an agreement with a building or estate developer. In Tamworth, residents moving into the Windmill Hill Estate will be the first in NSW to benefit from this opportunity. Every home at the 970-lot development will get Telstra Velocity™ as well as access to Telstra's new Next G™ network.

Telstra's Next IP™ network: This next generation fixed fibre optic network is designed to support businesses throughout metropolitan and regional Australia by providing greater reliability, scalability, flexibility and robustness, together with enhanced security and support for features such as Quality of Service.

The Next G™ network: Complementing Telstra's fixed broadband network is Telstra's Next G™ network, Australia's fastest and largest wireless broadband network. The Next G™ network covers 98.9% of the Australian population. The Next G™ network also introduces High Speed Packet Access (HSPA) capability, which brings wireless broadband to substantial areas of Australia previously unable to access broadband.

Peak network speeds of 14.4Mbps downlink and 1.9Mbps uplink have been enabled across the entire Next G™ network. This means existing Next G™ customers experience average user speeds ranging between 550Kbps to 1.5Mbps, bursting to 6Mbps. In 2009, the peak network downlink speed is expected to increase up to 40Mbps.

Satellite broadband: Satellite broadband is available to the small minority of customers who live in rural and remote locations and where ADSL or Next G™ network coverage is not available. BigPond® Broadband 2-way satellite is the latest in satellite based broadband services. It can download data from the Internet at speeds of up to 400kbps, which is up to 14 times faster than a 28.8 kbps dial-up modem.

Benefits of high-speed broadband in regional and rural NSW

High speed broadband is changing the world. An independent report has estimated that high-speed broadband will bring economic benefits of \$12 billion to \$30 billion per year⁴ to Australia's economy. The digital culture that is flourishing affects the way people, businesses and communities in regional and rural NSW grow, prosper and adapt to the changing world.

The importance of bringing high-speed broadband to Australia cannot be underestimated. In addition to economic benefits, high speed broadband can:

- Eliminate the tyranny of distance for regional and rural residents, putting the bush on an equal footing with the city;
- Lower costs for small and medium sized businesses and provide fast 24 hour access to customers and suppliers worldwide;
- Provide interactive remote education, online testing and sophisticated learning tools for students in small and remote communities;

⁴ The Broadband Advisory Group's report to Government, 2003

- Offer new solutions for remote diagnosis and treatment of patients in regional and remote areas through telemedicine applications; and
- Deliver new benefits to residents at home, including interactive TV, video-on-demand and online training.

As technology advances and as businesses and government services adopt the applications made possible through these advances, high-speed broadband for residents in rural and regional NSW is becoming a necessity, not a luxury.

Small and medium sized businesses are vital to the continuing growth of the NSW economy. These businesses, especially those in regional areas, depend on public infrastructure and their productivity and growth requires fast and reliable telecommunications services.

The launch of Telstra's Next G network, with its wireless mobile broadband capability, is delivering real benefits to many businesses in regional NSW as these real customer scenarios⁵ demonstrate:

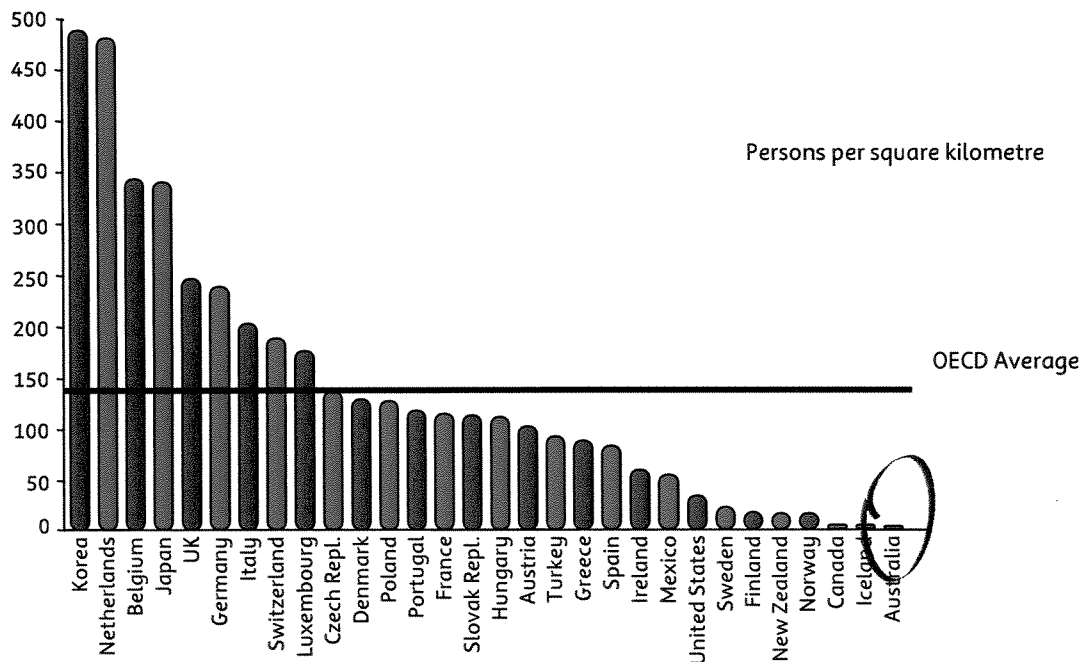
- In Narrabri, a real estate business owner is using his Next G™ mobile to take photos or videos of a tenanted property and email them straight to the owner when doing a final exit interview, all without going back to his office. It provides security of mind for the owner and streamlines his business processes.
- In Orange, the CEO of a sporting organisation who spends a lot of time on the road uses his Next G™ mobile phone to connect to his laptop and upload important information in a timely manner to the internet as well as email during the sporting season.
- Pilots working at a business jet charter company in Wollongong use Next G™ data cards and handsets to remain in contact with head office, and prior to departure use the Next G™ network to access passenger lists, review flight plans and check weather details.
- An executive manager of a regional Chamber of Commerce north of Sydney used his Next G™ mobile to keep in contact with emergency workers, community groups and the media when power lines and fixed phone services (including broadband) were down in the aftermath of severe flooding and storms.
- A foster carer of dogs and puppies in Koonorigan uses her Next G™ mobile to send a photo of the pups a caller may be interested in before they travel, sometimes long distances, to see whether it will have a new home with them.

Impediments to telecommunications investment

In Australia, providing services in remote areas is challenging. Land-based technologies that deliver broadband to regional and rural communities, such as Telstra's copper network have their limitations, as the reach of ADSL broadband is dependent on three main factors: Distance, Density and Terrain (the DDT factor). The cost and capability of providing ADSL service depend on how far a premise is from the telephone exchange (Distance), the population per square mile (Density) and the topographical and other physical characteristics of the surrounding land (Terrain).

⁵ Names and other identifying data have been removed. For more Telstra customer stories, visit <http://www.nowwearetalking.com.au/Home/GWhiz/Browse.aspx>

DDT makes telecommunications essential for Australia, but increases infrastructure costs. Australia has the lowest number of people per square kilometre of any developed nation in the Organisation for Economic Cooperation and Development (OECD).



Source: OECD

Under the current regulatory regime, Telstra is forced to sell access to its copper network (which provides fixed line and ADSL broadband services) at below what it costs Telstra to provide the service. The ACCC sets the price for access to this network (known as Unbundled Local Loop, or ULL).

There is a different price set by the ACCC for competitors to access to Telstra's network in metro areas than there is for access to the network in regional and rural areas. As a result, Telstra's competitors tend to buy the cheap lines in the cities through Telstra Wholesale. It is more expensive for competitors to buy the lines in the rural areas – and there are far less customers to sign up. This is known as 'cherry-picking' – picking the cheaper lines in the lucrative city areas and ignoring the more expensive lines with high service costs and low customer numbers in rural areas.

This has three potential impacts:

1. It reduces the likelihood of facilities-based competition in rural areas
2. By allowing competitors to cherry pick the low-cost city customers, it reduces Telstra's ability to maintain the quality of service that regional customers have historically enjoyed; and
3. Overall it reduces the ability of Telstra to invest in the network, as it cannot receive a fair return on the investment.

Telstra agrees that some regulations are necessary, particularly those that safeguard services for consumers, however it is special competition laws that only apply to Telstra and give its competitors an unfair advantage that Telstra would like to see reviewed.

When Australia's telecommunications market was first opened up to competition, the Government introduced special legislation to help new telecommunications companies get started in a market which had been dominated by Telstra for so many years. Those

regulations which were drawn up in the mid 1990s, are now out of date, with hundreds of telecommunications providers now competing and offering services - many of which are big multi-national companies that are much larger than Telstra.

In 1992, for example, there were 2 telecommunications carriers and 3 mobile operators in Australia. In 2006, there were 157 telecommunications carriers, 4 mobile operators, 23 mobile resellers and 467 internet service providers. Clearly, competition is alive and well.

Competitive ADSL coverage

	% Metro competitor coverage	% Rural competitor coverage
Queensland	67%	6%
New South Wales	84%	1%
Victoria	82%	3%
South Australia	83%	1%
Western Australia	92%	0%
ACT	n/a	72%
Tasmania	n/a	4%

82% metro over-build

Only 4% competitor
infrastructure coverage
in the bush

However, current regulations (Parts XIB and XIC of the *Trade Practices Act*) mean Telstra has to share its investments with its competitors, often at prices set by the ACCC which force Telstra's shareholders to subsidise its foreign-owned rivals. Because the regulations are preventing Telstra investing and providing new services crucial for Australia's future, Telstra has called for their removal and for the same rules to be applied to Telstra as are applied to every other company operating in Australia.

Telstra has invested in Australia's largest and fastest national mobile network, the Next G™ network, however its plans for a new high speed fixed broadband network (the Fibre-To-The-Node or FTTN network) cannot be progressed under these outdated regulations.

Expert Taskforce – FTTN

In June this year, The Federal Government established the Expert Taskforce to assess proposals for the development of a commercial, open-access high speed broadband network in capital cities and major regional centres. Submissions have been called for and close on Thursday, 14 February 2008. Telstra is currently considering how it will respond to this call for submissions.

Regional Telecommunications Independent Review Committee (RTIRC)

The Federal Government's Regional Telecommunications Independent Review Committee (RTIRC) was established to review telecommunications services in regional, rural and remote areas of Australia.

The Committee must report every three and a half years. Membership of the Committee was announced on 13 August 2007, and a review, chaired by Dr Bill Glasson, is currently underway. Submissions are currently being sought by 7 December 2007 in response to the Regional Telecommunications Review discussion paper.

The need for high speed broadband

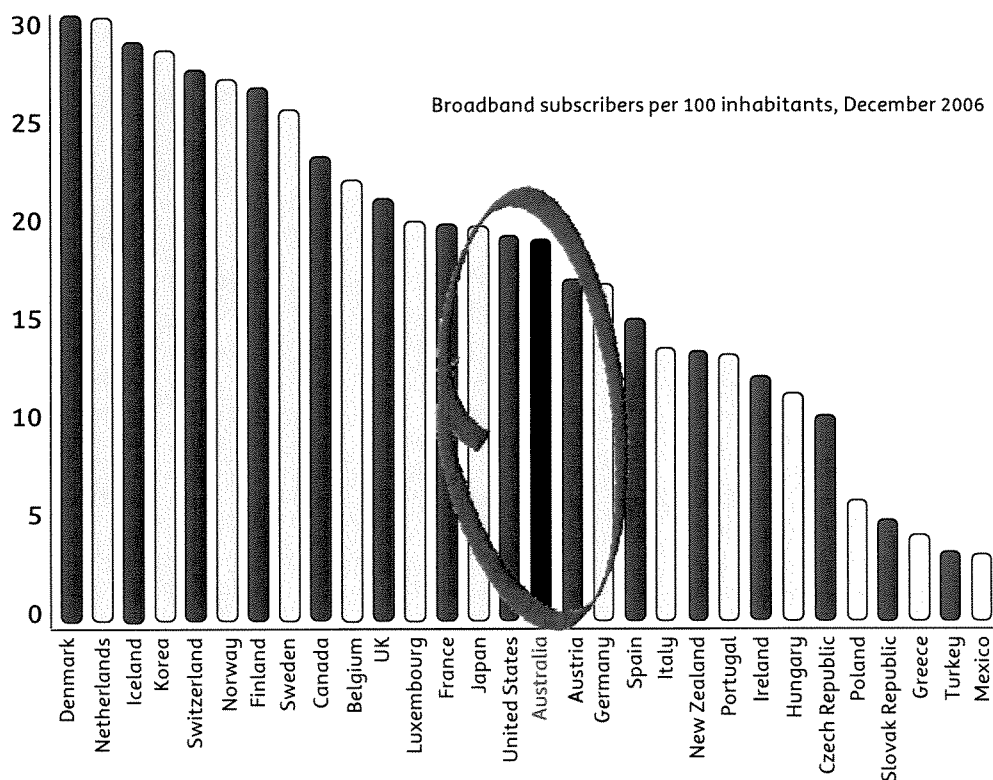
With regulatory certainty, Telstra is ready to invest more than \$4 billion on a high-speed FTTN network in five capital cities serving 4 million premises. In time, this network could also be extended to regional centres. This network would be an open-access network: other competitors would receive wholesale access to the network from Telstra.

However, under the current regulatory regime, it is very difficult to achieve the regulatory certainty required to make such a significant investment. The current regime:

- Calculates costs determined on the basis of hypothetical telecoms networks rather than the real life circumstances that Telstra faces around Australia;
- Prevents Telstra from recovering the full cost of providing uneconomic rural services
- Allowed the ACCC to reduce the prices paid by competitors for access to Telstra's network to provide their own broadband services by more than half over the past twelve months ; and
- Allows any pre-investment agreements with the ACCC to be revoked at any time.

While telecommunication operators in several OECD countries have begun or announced large fibre-to-the-premises rollouts, investment in Australia continues to be held back by the Australian Competition and Consumer Commission (ACCC), because of lack of agreement on Telstra's costs, and subsequently the regulated prices it can charge.

In the latest OECD rankings dated December 2006, Australia is ranked sixteenth out of thirty developed countries in terms of broadband penetration per 100 inhabitants. Australia is also ranked twenty-fifth in the world in terms of available internet bandwidth and fifteenth in the world in terms of networked readiness:



Source: OECD, WEF

Broadband Connect

The OPEL announcement

On 18 June 2007, the Federal Government announced the awarding of \$958 million to OPEL, a joint venture between Optus and rural group Elders.

The 'Australia Connected' announcement stated high speed broadband services would be provided to 99% of the population by June 2009 through a mix of fibre optic, ADSL 2+ and WiMAX technology.

It is Telstra's position that the OPEL decision means that many rural customers will end up being served by a wireless technology that is unsuitable for rural areas, vastly inferior to Telstra's Next G™ network, and unable to serve as a foundation for future network development.

When the OPEL network is due to be completed at the end of 2009, it will be one third the size that Telstra's Next G™ network is today; it will not provide mobile voice, video or mobile broadband and will provide lower peak downlink speeds than the 40 Mbps that Telstra's Next G™ network is due to provide in 2009.

In addition, the funding for ADSL2+ in regional and outer metro exchanges does not appear to provide ADSL broadband to people who do not already have it. Telstra has not yet identified any exchanges that will get ADSL under the OPEL plan that will not already have it. In fact, many of the locations receiving funding for ADSL 2+ already have ADSL and many have ADSL2+ or are linked to exchanges that are enabled for ADSL2+ broadband.

The most concerning aspect of the announcement for people in large parts of rural and remote Australia is that the Government will give money to a competitor to duplicate services in outer metro areas and large regional centres, while many smaller towns will continue to go without.

Concluding remarks

Telstra has a long and successful track record of serving regional, rural and remote NSW, and we will continue to do so. The Next G™ network, providing 3G mobile services and high speed broadband of up to 14.4Mbps to 98.9% of Australia's population (with speeds of up to 40Mbps to be offered in 2009), bears testament to this commitment.

While Telstra will continue to strive to lead the way in Australian telecommunications, regulatory reform is essential if businesses, government and the wider community are to reap the very substantial economic and social benefits of the high-speed broadband infrastructure that will help drive productivity and competitiveness over the coming decades.

Yours sincerely

Brett Riley
Executive Director
Telstra CountryWide® New South Wales

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Yours sincerely

A handwritten signature in black ink, appearing to read 'Brett Riley', with a stylized flourish at the end.

Brett Riley
Executive Director
Telstra CountryWide® New South Wales