



**Regional
Development**
Australia
I L L A W A R R A

Preliminary submission from the Illawarra region

to

Senator the Hon Stephen Conroy

Minister for Broadband, Communications and the Digital Economy

In relation to

the National Broadband Network

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Introduction

The Illawarra region is located approximately one hour south of Sydney and spans an area of 8,485 square kilometres. It is situated on a narrow coastal strip from Helensburgh in the north to Gerroa in the south. Wollongong itself is the third largest city in New South Wales after Sydney and Newcastle and the tenth largest city in Australia. It has a population of over 280,000 (2007) and a growth rate of 2.9 per cent (2006). It encapsulates three local government areas of Wollongong, Shellharbour and Kiama and enjoys a mixed terrain of the ocean, rural and urban. The region has a strong industry base of manufacturing, mining, engineering, finance and business services, tertiary education, tourism and retail and has one of Australia's most important deepwater ports.

About RDA Illawarra

RDA Illawarra is the peak consultative organisation representing the entire Illawarra region on regional development issues. It was incorporated in July 2009 and is a non-profit, community based organisation funded by both Commonwealth and State Governments. It is governed by a Board comprising leading community, business and local government representatives.

RDA Illawarra has compiled this submission at the request of a range of Illawarra stakeholders. RDA Illawarra has recently conducted extensive business/community consultations throughout the region to help determine the Illawarra's regional development priorities. Stakeholders have asked RDA Illawarra to put forward a case to the Commonwealth Government to have the Illawarra region considered as a top priority for the Australian Government's National Broadband Network (NBN) rollout. The submission has been prepared on behalf of Illawarra residents and businesses in collaboration with the Information & Communication Technology Illawarra (ICTI) and the University of Wollongong.

Regional Need

Currently in the Illawarra region, broadband internet access is very inconsistent. Depending on location, broadband access may be poor or non-existent. In many locations, even within a five kilometre radius of Wollongong CBD, residents and businesses may not have access to ADSL. The alternatives to ADSL are dial-up or wireless services, which are often slow and unreliable due to the terrain and inadequate wireless transmission coverage. Surprisingly, these scenarios are quite common in the region.

The economic impact of this scenario is very negative. The Illawarra region faces major challenges in continuing to re-structure its economy. The emergence of new, innovative businesses, especially small and medium enterprises, is seen by regional stakeholders as the key to the future of the region. The nature of many of these emerging enterprises is that they often start life as home-based businesses. With around 67.5% of all small businesses now home-based, the inadequate availability of high-speed broadband in suburban areas of the Illawarra region is a significant hindrance to growth.

Status of Telecommunications in the Illawarra

Despite the Illawarra region's inadequate broadband coverage, it has well established and extensive telephony infrastructure, comprising of a comprehensive network of Telstra trenches, tunnels, ducts and copper cabling covering the entire populated area of the region. This provides a significant potential advantage to the Government in selecting the Illawarra region as an early site for National Broadband rollout. If existing infrastructure in the region can be harnessed by the National Broadband Corporation this would result in a major cost reduction relating to infrastructure required for the project, particularly in the Illawarra region.

Why should the Illawarra region be selected as an early NBN rollout location?

There are a number of reasons why the Illawarra should be considered one of the first, if not *the* first, mainland locations for the Australian Government's NBN rollout. Its geographic positioning, population base and density, local availability of high quality research and technical support, growing telecommunications industry and the potential for economic growth and improved employment prospects are just a few of the reasons why the Illawarra should be considered a top priority. However, more importantly, the Illawarra is 'rollout-ready' with existing infrastructure in place and support and expertise on call. These reasons, and more, are discussed in greater detail below.

1. Geographic Positioning

The unique geographic positioning of the Illawarra combined with its high population density makes it an excellent location for the NBN roll out. A large population base spread over a narrow coastal strip stretching only 82 kilometres would mean that extent of fibre optic cabling rollout required is relatively small compared to regions with a more dispersed population. NBN rollout in the Illawarra region would enable the connection of a large number of businesses and households in urban, regional and rural environments in a comparatively short timeframe; hence, maximum bandwidth benefit for comparatively small effort.

The Illawarra region is also close enough to the Sydney CBD and airport to enable network engineers and planning specialists to travel here with minimal cost to implement a pilot regional NBN rollout. Again, this would result in better affordability for the Government particularly in the early stages of the rollout.

The region's close proximity to Sydney (68 kilometres from Wollongong CBD) enables it to play a strong, supporting economic role to Australia's largest city. Evidence of this is Wollongong's ongoing development a secondary financial services hub. The impressive growth of specialised financial services businesses, especially in the areas of superannuation and insurance administration gives an indication of role Wollongong can play in support of Sydney's economic centre. Such businesses are heavily dependent on high speed broadband.

Wollongong is the 10th largest city in the country in terms of population and, as Australia's leading metal manufacturing centre with a rapidly expanding international trading port, is a significant contributor to the national economy. The Illawarra region generates an annual gross regional product of approximately \$11 billion.

Shellharbour City is one of NSW fastest growing population centres, with an economy that is heavily dependent on small and medium enterprise. Shellharbour has a very low workforce self-containment rate of around 30%. This situation is unsustainable on the long term. Prospects for future growth of the Shellharbour economy are largely reliant on the development of new businesses with a high level of technology use.

This submission suggests that the current standard of broadband connectivity in the Illawarra does not match the region's contribution to the economy and its potential importance to the nation.

2. Transport/Telecommuting

The Illawarra has, arguably, the largest commuter corridor in the country, with between 19,000 and 20,000 people commuting to work out of the region each day; most to Sydney. A fast broadband connection to homes would create opportunities for video conferencing and improve connectivity overall to make telecommuting more practical and easier and allow for a reduction in carbon emissions from reduced transport usage.

3. Technical Support / University Capabilities

The internationally recognised University of Wollongong has approximately 22,000 students and a strong research and teaching base in telecommunications and IT. It is home to Australia's largest University based ICT Research Institute, with specialised expertise in rural and remote internet, and is well equipped to manage and provide technical assistance to the Government throughout the NBN rollout:

- The University can provide technical support to ensure the effective rollout of the broadband network within the Illawarra region and beyond. Part of this support can be the University's capacity to undertake *validation testing* of the NBN technology to ensure that network infrastructure achieves its intended high level of operational efficiency.
- The University is also now in the process of creating a SMART (Simulation, Modelling and Analysis for Research and Teaching) Infrastructure Facility, a world leading research and training centre that will address many issues relating to infrastructure development. This Facility will draw together the University's existing expertise in other areas including information technology and will be an excellent resource for the Government to call upon during the NBN rollout.

Through the ICT Research Institute and SMART Facility the University has the capacity to undertake *benchmarking* against international standards throughout the

duration of the rollout period and beyond, to help ensure that Australia acquires an internationally competitive network.

- These capabilities support an argument for the Illawarra to be an *NBN 'test bed'*. The Facility could be utilised to test the NBN technology in a targeted location and use the results to improve/modify the technology so that it is ready for a nationwide rollout. The Facility could also develop an entire national network rollout model based on the test region that could be implemented across Australia.
- Similarly, the University has the capability to *test new types of applications* that could be implemented through the NBN infrastructure. For example, medical informatics applications could be tested for functionality over regional and remote networks.
- RDA Illawarra is aware that the Government has made a policy decision not to roll out the NBN fibre-optic system to remote locations with a population of less than 1,000. However, the University of Wollongong has undertaken extensive research into the delivery of high quality broadband to regional/remote locations using alternative technology. This capability would be of significant benefit to the national rollout.
- The University of Wollongong's substantial ICT research capability would provide an excellent platform for the National Broadband Network Research Centre.

4. Regional ICT Strengths

The Illawarra region has an established ICT industry cluster. The members and associated businesses of ICT Illawarra possess a broad range of technical skills that could be utilised to support a regional broadband rollout.

Each year 650 students graduate from the University of Wollongong with qualifications in a range of ICT related disciplines, approximately 22% of the total ICT graduates in NSW. TAFE NSW also sees on average 465 ICT program students graduate each year. Many of these graduates possess advanced qualifications and skills in disciplines that relate to broadband technology. This is a vital resource for the NBN project that can readily be capitalised on if the Illawarra region is selected as a pilot region for the NBN rollout.

A large proportion of this highly capable workforce currently leaves the Illawarra region after graduation. This is largely due to a lack of career pathways in the region. Ideally, a much larger number of graduates would remain in the region and contribute to the growth of the regional ICT industry, and in many cases to start their own technology-based businesses.

In essence, the Illawarra has some of the highest performing graduates and well established business support networks in place, but it lacks some of the key infrastructure to keep graduates local. Having the NBN rolled out early in the Illawarra would provide a new focus for the development of graduate careers in the Illawarra region, enabling access to work with the most up to date technology.

5. Employment

It is well known that the Illawarra region suffers from high levels of unemployment, particularly youth. In September 2009, the unemployment rate for the Wollongong Statistical District was 7.3 per cent compared to 5.8 per cent nationally. However, the youth (15-19 yrs) unemployment rate for the same district was 27.1 per cent.

This data provides evidence of a labour market and a regional economy that requires urgent attention. The region has been struggling with its youth unemployment rate for some time and an economic boost such as the NBN rollout would provide greatly increased opportunity and hope for many unemployed people, especially youth. Improved local career pathways in technology-based sectors such as digital creative industries has the potential to improve school retention rates (currently very low) and increase enrolments in technology courses.

In addition, the rollout could provide better opportunities for home-based business development and entrepreneurship. Many of these businesses are operating with second-rate broadband connections. This hinders business growth and deters potential newcomers to the market. With significantly improved connectivity to national and global markets, the competitiveness and growth prospects of Illawarra-based, export oriented businesses would be greatly enhanced. This would accelerate the much-needed restructuring of the Illawarra economy.

The development of globally oriented small and medium enterprises has been identified by RDA Illawarra and its stakeholders as the primary source of new jobs for the Illawarra region in the future. The availability of genuine high-speed broadband across the region will complement existing strategies to grow smart SMEs in the region.

Conclusion

Extensive business and community consultations undertaken by RDA Illawarra during 2009 have clearly demonstrated the recognition by regional stakeholders of the need for high-speed broadband, both for economic development and social inclusion reasons. Throughout the consultation process the community has shown strong support for the early rollout of the National Broadband Network in the Illawarra region.

RDA Illawarra believes that the benefits to both the region and the Government are substantial and would result in an excellent return on investment. The Illawarra region's unique combination of geography, location, population density, ICT research capability and infrastructure provide an opportunity to quickly connect large number of homes and businesses. RDA Illawarra suggests that this would allow the Commonwealth Government to undertake the NBN rollout in an economically important region at a lower cost per connection than most other regional centres across the nation.

RDA Illawarra would welcome the opportunity to further present its case to the Lead Advisor and NBN Corporation. Please contact the RDA Illawarra CEO (02 422 4500) if you require additional information in support of this initial submission.

Natalie

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On behalf of the Board of Regional Development Australia, Illawarra

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