

Submission to the Regional Telecommunications Review

The following submission is made on behalf of Regional WA Stakeholders within the Wheatbelt, Midwest and Great Southern regions. The Mid West, Great Southern and Wheatbelt Development Commissions have been consulted in the development of the submission and have provided information. It is a united submission designed to provide 5 recommendations that would have a significant impact on the adequacy, equitable access, roll out of the NBN and relevance of the Universal service obligations in the future for regional communities in Western Australia.

The submission makes five key recommendations in relation to five issues/opportunities:

1. Affordable Access Recommendation: Universal wholesale pricing is maintained through cross subsidies and regulation
2. Access to Technology Recommendation: If school, ESO sites or clinics exist then the community/town should be exempt from NBN satellite
3. Competition and Co-investment Recommendation: Commonwealth Government to enable competitive alternatives to NBN in the regions
4. Unlocking Latent Digital Demand Recommendation: Optimise ROI for public infrastructure investment with 5% of each project dedicated to engagement programs
5. Optimising Public Investment: NBN to leverage off all MBSP funded sites to provide fixed wireless access in Western Australia

The structure of the submission has linked the issue or opportunity to the strategy that could assist to solve the issue or capitalise on the opportunity. A recommendation and relevant case study has then been presented for each.

Between 2015 and the completion of the NBN rollout, regional users are likely to require 10x the bandwidth that is available in metro areas (Source: Cisco Visual Networking Index, 2015). To be able to become internationally competitive, Australia must ensure its policy framework is best practice, innovative and utilises the capacity and investment already in place in our regions. Currently there is much evidence that NBN has not achieved this outcome. As a result of strategic investments in new telecommunications towers through the WA Royalties for Regions (RfR) Program and the Commonwealth Mobile Black Spot Program (CMBS) many new alternatives to the NBN satellite will become available in regional areas. Accordingly, we recommend extending the reach of Fixed Wireless and Fixed Line FttP using these new telecommunications towers as access points connected to high capacity broadband backhaul.

Now is the opportune time to renew the government's policy settings and implementation practices to have a significant impact on key telecommunications deliverables for the regions.

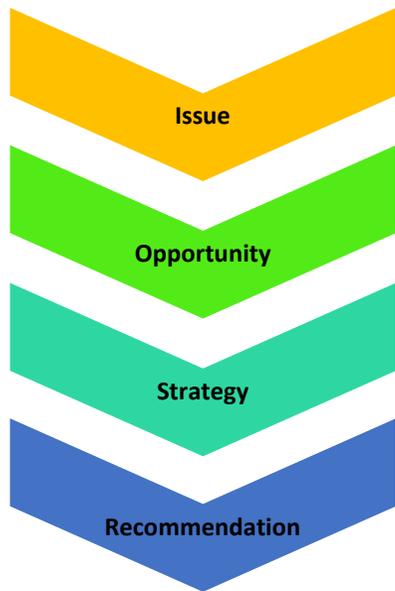
We look forward to the results of the Review and the opportunity to work with the Australian Government to improve the adequacy, equity, leverage and affordability of the existing and future regional telecommunications investments in Western Australia.

Submitted by

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Affordable Access



•Broadband is more costly to provide in the regions. Affordability impacts use.

•Increased online usage in the regions reduces services delivery cost and effort.

•Public funding and industry cross subsidisation of infrastructure and pricing.

•Universal wholesale pricing is maintained through cross subsidies and regulation.

SYNOPSIS

With a number of reviews and reform programs underway in relation to telecommunications regulation there is a real concern that the established practice of cross subsidisation, to enable uniform national pricing of basic telecommunications services may cease. The Commonwealth Government has indicated it is looking to remove the policy of uniform national wholesale pricing under the National Broadband Network framework. This would likely lead to a lowering of prices in major cities and an increase in end-user cost for the regions.

There is a common understanding that due to distance, terrain and the higher cost of goods and services, it is more expensive to provide telecommunications to regional users as opposed to those that are located in urban Australia. The practice of cross subsidisation has enabled uniform national wholesale and retail pricing to occur, allowing affordable access to be provided to regional homes and businesses.

This is vital to enable a level playing field in relation to the cost of telecommunications in operating a business in the regions or for families to access educational services and specialist medical support. Any change to this practice could drive a wider gap in relation to the availability of social and economic amenity experienced by the regions in comparison to urban Australia.

Regions are willing to look at ways to enable co-investment in telecommunications infrastructure and services, to help mitigate the high cost of operations and seek only that the existing practice of cross subsidisation remain to ensure continued access to uniform pricing.

CASE STUDY

The recent Regional Telecommunications Program (RTP) Baseline Study, conducted by the WA Government in support of its funding to improve mobile coverage across regional WA, found that people and businesses located in the regions demonstrated a higher level of digital engagement across many applications than the national average. This is not surprising as digital technologies and the internet provides users in the regions a way to overcome distance and the lack of services that are available.

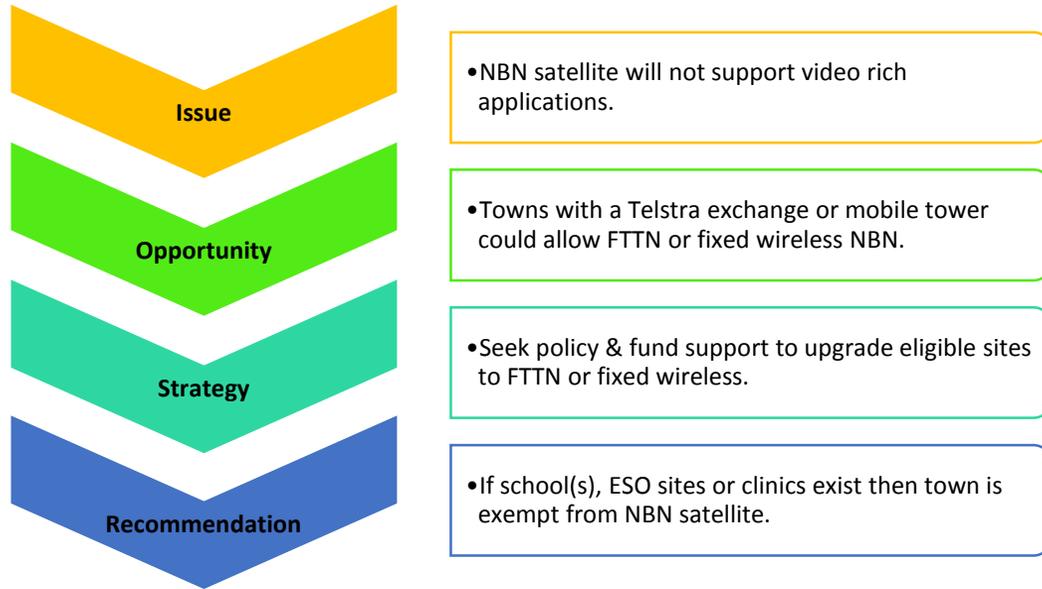
In many ways, residents in regional areas are more dependent on reliable broadband access than metropolitan residents because in many cases, it is their only means of accessing essential goods, services and education that may not be readily available in regional areas.

In the case of homes 93% indicated they banked online and 89% said they shopped over the internet. Some 84% of homes indicated occupants participated in social media and 82% said they used both smartphones and tablets to access the internet. 39% of homes indicated that they used a mobile device as the primary way to access the internet (not fixed broadband).

In the case of businesses some 87% used one or more cloud based application and 31% managed their accounts through online services such as MYOB, Xero and Quickbooks. These three online providers have estimated the national take up at about 12%. 94% of businesses indicated they used online banking and 94% said they shopped online. 5% indicated they engaged in selling their products or services online. 47% of businesses indicated they used social media to promote and advertise their goods and services. Across the study the average rating for the need to further improve mobile access and affordability in the regions was 9.6 out of 10, indicating that there remains substantial room for improvement to meet business needs and expectations.

Any changes to the current practice of cross subsidisation from urban areas to the regions, to enable uniform national pricing would greatly disadvantage users in the country. This would likely impact on the ability of regional based businesses to compete in the digital economy against enterprises located in major cities where the real cost of access is lower, and the quality of service higher.

Optimise Access Technology



SYNOPSIS

A 2012 paper by the CSIRO on the effectiveness of satellite technology to support future e-health programs suggested the technology had limitations for what would be possible to deliver into and from regional and remote communities.

Similar studies have highlighted the limitation that latency has on video based applications which are prevalent across digital health and education programs. With the emergence of the importance of video to the effective deployment and operation of emergency service this calls into question the viability to support these innovations in communities serviced by satellite broadband. The NBN long term satellite services planned wholesale speeds (download/upload) will be subject to equipment, software, broadband plans (tiered data/speed plans) and service providers network integration of these services into their existing network.

Every effort should be made to seek to replace satellite connectivity with a higher standard of technology, especially where existing or proposed public investment for complementary telecommunication exists. This should be mandated where existing education, health or emergency services facilities exist.

In effect a “no disadvantage” test should be devised to ensure such regional and remote communities do not receive a substandard broadband solution under the NBN.

CASE STUDY

CSIRO was awarded a \$1.9 million grant by the Australian Government’s Department of Health and Ageing to trial “Remote-I” in three regional and remote locations across Australia, in 2013.

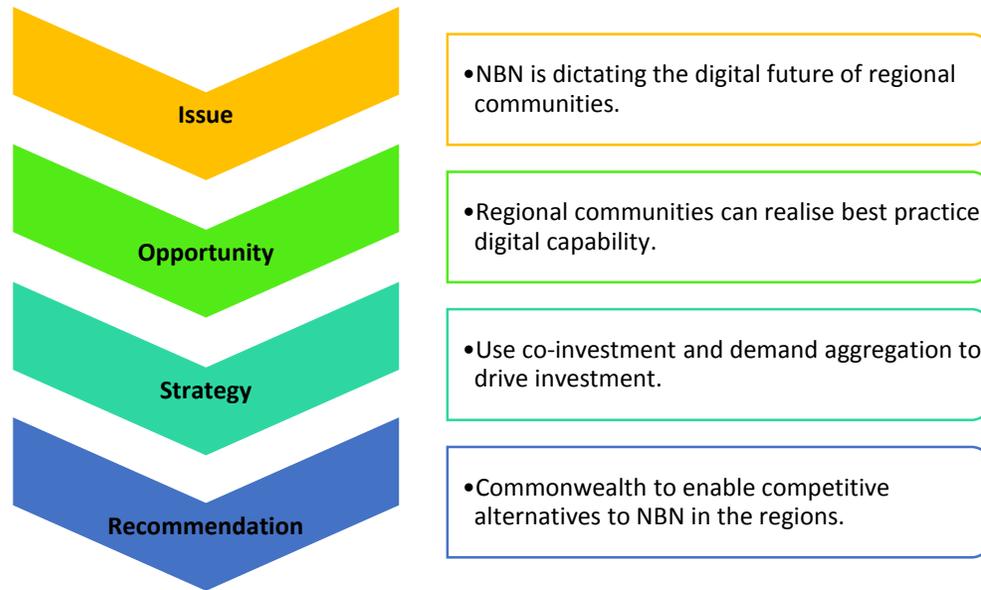
Working with partners including the Western Australian (WA) Health, WA Country Health Service, the Indigenous and Remote Eye Health Service (IRIS) and the Australian Society of Ophthalmologists, the study was undertaken over 12 months and involved 900 patients, with 300 patients participating at each trial location. The research project was one of the first to investigate the practical delivery of health services using telecommunications (telehealth) into rural areas in Australia.

The CSIRO is now assessing the clinical outcomes as well as the technical performance of conducting these services over satellite broadband. Initial indications are that this communications medium presents limitations in the delivery of some digital health applications. This will contribute some of the first evidence from Australia to demonstrate how telehealth systems, such as “Remote-I” can provide low-cost health services to those most at need, while improving patient care and access to health services for indigenous and older Australians.

Dr Sara Dods from the CSIRO has published a paper on the implications of delivering effective health services into remote and rural areas using satellite broadband.

Caring for the last 3%: Telehealth Potential and Broadband Implications for Remote Australia
<https://publications.csiro.au/rpr/download?pid=csiro:EP129516&dsid=DS3>

Enable Competition and Co-investment



SYNOPSIS

Regional and remote communities have the capacity to influence the business case for digital infrastructure deployment for their needs. The key is to ensure engagement and collaboration on the part of infrastructure providers during the design and planning stages. So far there has been little evidence that NBN has appropriately engaged with communities, to explore options for upgrade or enhancement of planned infrastructure deployment.

There are growing options for State Governments in partnership with industry and Local Government to devise alternative and enhanced broadband infrastructure solutions for regional communities. There is also clear evidence (see Case Study) that regional communities have the capacity to subsidise infrastructure investment where there is a will to achieve better outcomes.

Every effort should be made to engage with communities (especially proactive ones that demonstrate a willingness to seek better outcomes through co-investment), to enable the optimal outcome from any public telecommunications infrastructure deployment program.

Rural communities have the financial and management capacity to co-invest in social and economic infrastructure that ensures the future of their community and supports local businesses. They do not have the capacity to compel the NBN to work with them on solutions, however the Commonwealth policy position could enable this and greatly leverage the national infrastructure budget.

CASE STUDY

After watching their local sporting groups disappear, the local Progress Association of the small town of Nyabing was concerned it would soon see their local pub close its doors. There were concerns that the knock-on effect would spell trouble for the local economy, as well as losing a place for social gatherings in the community. The Progress Association partnered with the Wellard Group (local agricultural business) to establish a community cropping program.

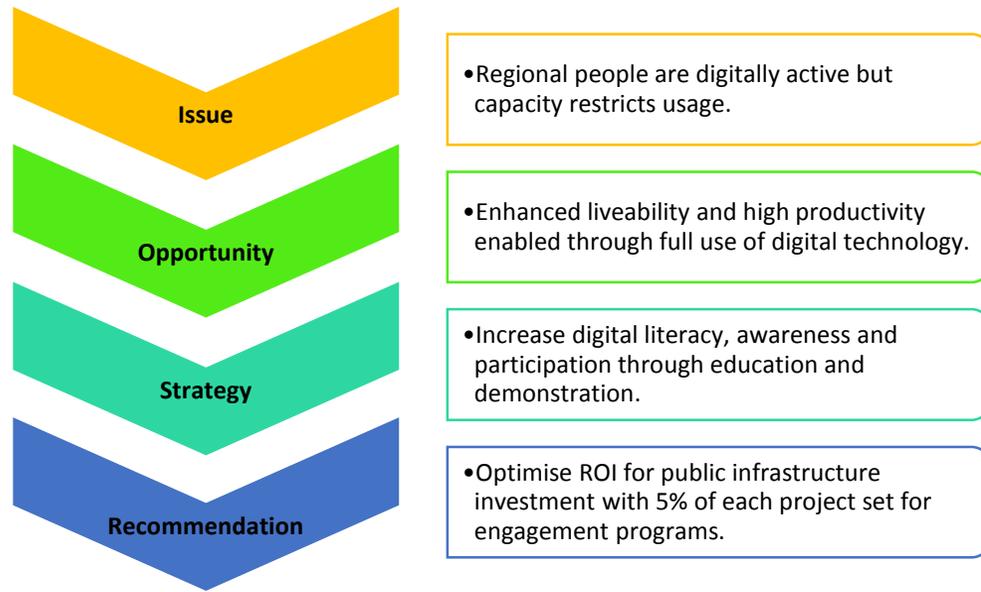
The funds raised from this initiative in the first two years have helped to improve social and economic infrastructure within the town. Past events and projects funded by the association include a portal theatre system and screen for the town hall to support community entertainment events, along with various social nights inclusive to community and outside areas. Funding has also allowed the Progress Association to buy the Nyabing Inn and retain its operations for the town. They are now developing plans for its refurbishment and seeking a full time manager/operator.

Recently the Shire of Kent spent approximately \$75,000 to encourage Telstra to install ADSL2+ capability at the local exchange. This has allowed a number of local businesses to move from dial-up to broadband in support of their ongoing commercial operations. This provides a good demonstration of a community's ability to influence investment decisions that impact on the sustainable economic and social fabric of their town and surrounding area.

Nyabing is scheduled to receive the NBN via satellite and as such future community cropping funds could be used to subsidise the deployment of fixed wireless in its place. The community is about to receive a new mobile tower under the WA Governments Regional Telecommunications Program. This investment could be leveraged to mitigate the cost between satellite and fixed wireless.

The community of Wongan Hills built the original phone tower in the community over 20 years ago. They have also built over 20 houses for professional families, built the local Medical Centre, Doctors residence, Child care centre and a TV retransmission tower.

Unlock Latent Digital Demand



SYNOPSIS

The recent RTP Baseline Study undertaken for the WA Government has demonstrated that there is a high level of digital participation and usage in regional communities in WA. This was not surprising given the ability for digital/online services and applications to overcome distance and the lack of physical facilities in many regional towns.

Online shopping and banking existed at higher levels than the national average (recorded across a range of national studies in 2013/14). The only areas that showed a lower level of digital activity were those that involved video streaming or content downloading. This can be attributed to the capacity issues (download & upload speeds, latency & data caps) with broadband options in the regions (mobile and satellite).

This high level of digital activity should be at the centre of planning projects to increase and improve broadband access in the regions. Deployment of a combination of strategies to ensure higher infrastructure standards (see other recommendations) and programs to engage regional people in the use and exploitation of digital tools to meet their everyday needs will ensure the benefits of the digital age are optimised for the bush.

It is also important that Governments look to find ways to maximise the return on investment (ROI) in communications and broadband infrastructure by encouraging maximum digital literacy and participation. A small portion of each program or project budget should be set aside to undertake engagement & digital literacy programs, to drive usage and take up. On ground networks can be effectively utilised to get the key messages deeply into communities of interest.

CASE STUDY

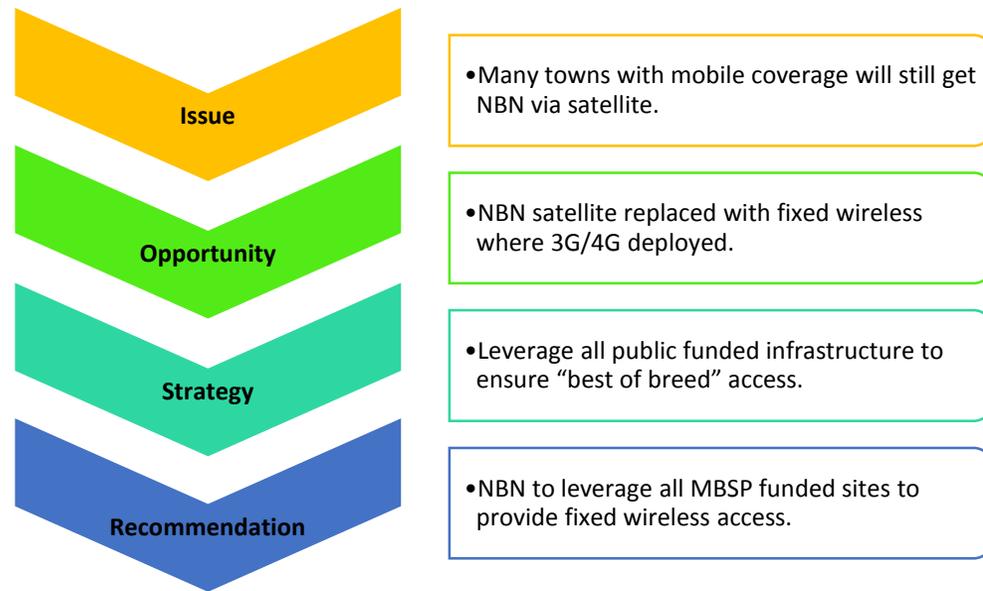
In September 2012, RDA Wheatbelt developed the **Wheatbelt Digital Action Plan**. The primary aim of this initiative was to identify strategies to maximise the uptake and utilisation of NBN infrastructure following its roll-out to the region and to highlight niche social and economic opportunities for a digitally enabled Wheatbelt.

A regional Steering Committee was formed to guide the development of the Plan and consisted of representatives from RDA Wheatbelt, the Wheatbelt Development Commission, Local Government and the WA Department of Commerce, Digital Economy Branch. This Steering Committee evolved into the Implementation Committee as priorities from within the Plan were identified and actioned. In May 2015 the Implementation Committee sought to broaden its scope and invite thought leaders in the region to form part of a Digital Reference Group to continue to drive the key focus areas within the Plan.

One of the cornerstone initiatives coming out of the Wheatbelt Digital Action Plan is the idea of a **Digital Flying Squad**, which has been successfully fulfilled in the transformation of the initial Steering Committee to the current regional Digital Reference Group. The flying squad has and will continue to bring ideas, inspiration, demonstration and skills development to the Wheatbelt community to improve people's knowledge of and capability to use digital technology and online applications.

The focus for the Digital Flying Squad in the first instance has been to provide **digital development opportunities** for a select few business groups and Community Resource Centres (CRC's). It was felt that this was a good approach as if the workshops were informative and valued by the participants, interest would be generated through word of mouth endorsements and we would be more likely to attract participants to anything we plan in future. RDA Wheatbelt has engaged Heartlands WA to assist in developing and rolling out a number of digital **iLearn Events**.

Optimise Public Investment



SYNOPSIS

This is a significant point in the history of Australia’s deployment of telecommunications infrastructure. At the same time and in parallel we have unprecedented investment and activity in the deployment of fixed broadband (NBN) and regional mobile coverage (MBSP). The unfortunate truth is that there is little evidence that the Commonwealth is seeking to integrate these two programs, to maximise the benefits of the public investment and reduce duplication and waste.

The Mobile Black Spot program offers a unique opportunity to transform the NBN solutions for many regional and remote communities. Many of the sites that will receive new towers under the MBSP are scheduled to have the NBN provided via satellite. As has been previously indicated this represents a problematic approach where communities have established social and economic infrastructure (schools, emergency services and health centres).

It would seem common sense to expect that NBN would explore every opportunity to leverage complimentary infrastructure that is to be deployed using public funds. The Commonwealth Government needs to coordinate with NBN in relation to the sites that it commissions under the MBSP and direct that Fixed Wireless be the default NBN standard of service for the communities involved.

This approach will permit the offloading of many regional customers from the capacity constrained and speed constrained NBN satellite services onto much higher capacity and higher speed Fixed Line and Fixed Wireless services. Additionally this approach would ensure that vital satellite capacity is freed up for those customers that will have no realistic expectation of gaining access to any other broadband technologies due to their remoteness from backhaul capacity.

CASE STUDY

On 20 February 2015, Minister for Commerce Michael Mischin and Minister for Regional Development Terry Redman jointly announced the Regional Telecommunications Project (RTP), made possible by the State Government’s Royalties for Regions program. An initial roll-out of 23 sites under the Regional Telecommunications Project is now under way, with three towers completed as of 30 June 2015.

Several of the sites that will receive new or upgraded mobile coverage through the WA Government funding are towns that are due to receive the NBN via satellite technology. Several of these towns including Yerecoin, Bolgart and Tammin in the Wheatbelt and Nyabing in the Great Southern region have local education facilities.

Minister Mischin has written to the Federal Communications Minister, Malcolm Turnbull, seeking his support to direct NBN to review their proposed deployment approach for these towns and to consider leveraging the public funded mobile infrastructure, to enable a fixed wireless approach in place of satellite.

With the recent announcement of a further 130 new or expanded mobile sites to be deployed across WA under the Commonwealth Mobile Black Spots program (involving Federal and State investment) there is likely to be many more communities that could be provided with a higher standard of fixed broadband should some integration be undertaken between the two projects.