Submission to the House of Representatives Infrastructure and Communications Committee

The Role and Potential Benefits of the National Broadband Network

February 2011

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Introduction

The NSW Farmers' Association (the 'Association') is Australia's largest state farming organisation, representing the interests of the majority of commercial farm operations throughout the farming community in NSW. Through its commercial, policy and apolitical lobbying activities the Association provides a powerful and positive link between farmers, the Government and the general public.

The area of telecommunications is particularly relevant to the Association as access to affordable, reliable and metro comparable telecommunications services is a key issue for farmers and rural communities. The Association plays a key role in leading the debate about rural and remote telecommunications services, particularly in terms of highlighting key service and market failures.

The Association's telecommunications policy has been developed over many years, continually evolving with changes in technology, social policy and regulatory framework. Regardless of change there have always been two underlying principals, namely parity of service and parity of price. The Association believes these principles should apply to all telecommunications customers; regardless of their geographic location. These two fundamental principals continue to drive the Association's objectives in the area of telecommunications, with broadband internet and the development of the National Broadband Network being no exception.

Association policy also supports a cost benefit analysis to outline how these potential future benefits may be quantified against the costs to alternative government programs and private sector telecommunications investment.

The Association welcomes the opportunity to provide this submission to the House of Representatives Infrastructure and Communications Committee (the 'Committee').

Recommendations to the Australian Government

1. Increase the roll-out of fibre beyond the current 93%.
2. Guarantee 100% mobile phone coverage in NSW.
3. Guarantee 100% mobile internet coverage in NSW.
4. Deliver a transparent system of registration and authorisation of online General Practitioners.
5. Provide further funds dedicated to educating rural and regional Australia on how to obtain maximum benefits from the NBN.
6. Provide seminars on all elements of internet use, from the purchase of the relevant hardware and software, to the use of cutting edge technology.
7. Distribute information in paper form to educate on the NBN.
8. Establish a National Internet Helpline.
9. Appoint Rural and Regional Digital Champions.
10. Legislate so that the ACMA has a duty to promote social inclusion.
11. Ensure that beneficial trends experienced in technologically advanced areas such as the inner city, are actively communicated and encouraged in rural and regional Australia.
12. Deliver a public education campaign to address the growing issue of self diagnosis using online health sites, beginning immediately.

These recommendations will now be expanded upon in order to clearly articulate the Association's views in this area.

1.   The NBN: Maximising Benefits and Addressing Challenges

The Association welcomes the improved access to technology the NBN purports to provide. For too long, Australians living outside cities have not been able to access fast, reliable internet. The possibilities that it brings are exciting, but this also raises many issues and challenges for the Government to address.

> The Association feels strongly that our Members will not be adequately equipped to make the most of high speed broadband once the NBN is rolled out. Whilst the Association will be identifying and highlighting where the NBN can provide benefits, as outlined in the terms of reference, our submission seeks to highlight:
> - the benefits that Government facilitated incentives to optimise broadband knowledge and use will bring;
> - The inequity that will exist between those with access to fibre and those without; and
> - The inequity that will continue to exist in the availability of mobile, wireless internet.

2.   Current Australian Government Programs Promoting the Use of the NBN

Regional Broadband Coordinators
Coordinators raise awareness of broadband and the opportunities of competitive backhaul services, promote broadband take-up and use and improve community understanding of the opportunities of broadband and engagement in the digital economy.

Currently there are no Regional Broadband Coordinators in NSW.

Digital Regions Initiative
This four-year program co-funds digital enablement projects with state, territory and local governments. It takes a collaborative approach to improve the delivery of education, health and/or emergency services in regional, rural and remote communities.

Four Year Communications Plan
The Department of Broadband, Communications and the Digital Economy is presently working with a communications agency to develop a four year communication plan aimed at educating all Australians about the benefits of an NBN-enabled digital economy. The Association has not seen this plan, but recommends that this submission is used in its development.

> The Association could find no evidence of any current program designed to increase the uptake and use of the NBN in NSW. A significant increase in funding and a raft of new policies and programs to address this is required immediately.

3.   The delivery of government services and programs

The Association has long advocated an increased rural and regional focus in the delivery of Government services and programs. Too often Association Members have travelled hundreds of kilometres to a Regional Government office only to be told they didn't have the relevant paperwork. We welcome the ability of the NBN to decrease the incidence of cases such as these, and reduce the time it takes to access services and information.

As the growth of online Government continues, it is important that the NBN is not used as an excuse to reduce face-to-face services below those demanded. We are already seeing this with the movement towards computerised answering services. Whilst these save money, they lead to a great deal of frustration, wasted time, increased costs to the customer, and reduced benefits to citizens in accessing Government services and programs. As broadband use increases, the right to speak one on one with humans in physical locations must be retained, otherwise the Government risks isolating those lacking in computer skills, and discriminating against those who do not have access to the technology.

The Association has policy that calls for an increase in the decentralisation of Government Departments. The Association believes that the NBN provides an opportunity for Government to increase regional services, by enabling government to capitalise on productivity increases, and correlated reduction of Government expenses in cities. Such savings should be used to bring rural and regional services up to the standard enjoyed in cities.

> Programs that educate and empower people who have access to the technology to use services such as online forms, video conferencing and discussion forums are essential. These programs must be free, offered in physical locations with actual instructors, and be well advertised to maximise participation. It is crucial that education methods range from those that rely on no prior knowledge of computers and the internet, through to more intermediate courses.

4. The improvement of health services and outcomes

The improvements to health services and outcomes broadband has delivered are well documented. As stated by Dr Tim Wilson in the 2011 report *Connecting Communities – The impact of broadband on communities in the UK and its implications for Australia,* in one year Scotland tele-care services saved:

- 5,668 hospital bed days through speedier discharges;
- 13,870 by reduced number of unplanned hospital admissions;
- 61,990 care-home bed days;
- overall 81,000 bed days; and
- 95% users said they felt safer, 66% more independent and 87% reassured because appropriate help was not far away.'[1]

The Association is extremely welcoming of these advancements and the opportunities they bring to the health system. However, this progress will bring challenges to Healthcare, which are outlined below.

Firstly, there will be temptation for Government to make e-health and other similar services an obligation, and not a choice. All Australians have a right to be able to see a local doctor, no matter what other options are available. There will always be a market for General Practioners (GPs) in suburban areas, even if a wide variety of online options are available. In small towns, which currently rely on Government support to ensure that there are local GPs, this may not always be the case. Under no circumstances would it be acceptable to force rural and remote residents to choose between e-health and travelling to larger centres for their medical needs.

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[1] Williams, T. (2011) *Connecting Communities – The Impact of broadband on communities in the UK and its implications for Australia.* Huawei, Australia.

If anything, savings in the public health system due to the NBN should be used to increase the under-resourced rural and regional health system. Shortfalls of funding for doctors, nurses, hospitals and ballooning waiting lists have long been growing problems in country Australia. If similar savings to those outlined above in the Scotland example can translate, these must be invested to bring health services up to a reasonable standard in rural and regional Australia.

Whilst we support an individual's right to choose to use e-health services from their own home, the Association is concerned that any reduction in face-to-face human interaction will lead to an array of health and mental health issues. Furthermore, as online GP services become more common, the risk that illegitimate websites providing this service will increase. The Association recommends a transparent system of registration and authorisation.

A further issue is the growing problem of the use of medical information found online to conduct self diagnosis. An international survey conducted by health insurance provider Bupa, found that 80% of Australians use the internet to research health issues.[2] The Association recommends a public education system to address this, beginning immediately.

The Association would like to point out that the speeds that the wireless and satellite elements of the NBN will exclude users from many services offered on fibre. This could lead to the issue of a 'digital health divide'. Those without fibre will not have access to interactive streaming and real-time video, essential elements of the digital health future.

5. Improving the educational resources and training available for teachers and students

Like in the health sector, there has been strong evidence showing how high speed broadband has significantly improved educational outcomes. The Association both recognises and welcomes the improvements already achieved, and looks forward to further progress in the future.

> The Association would like to bring the following educational issues to the Committees attention:
> - The need for Government to increase awareness of the ways the NBN can be used to teach and learn.
> - The risk of the expectation of use of new technology without relevant training.
> - The educational digital divide that will exist between those with access to fibre and those without.
> - The problems associated with online teaching methods that rely on students being able

6. Impacting regional economic growth and employment opportunities

The Association holds the view that a successful future for NSW relies on achieving decentralisation, on the creation of jobs in and the shifting of population to locations other than greater Sydney. This in turn requires vision and action to both sustain and grow regional economies. In outlining how this is to be achieved, the Association agrees with the proposition that the importance of an industry and indeed regions should be identifiable by the investment in economic and social infrastructure by Government.

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[2] McDaid, D & Park, A. (2011) *Online Health: Untangling the Web: Evidence from the BUPA Health Pulse 2010 International Healthcare Survey.* The British United Provident Association Limited, London.

The NBN will contribute to the Government's stated policy goal of decentralisation to regional areas. What the Association calls for is that this is extended to rural areas. It is estimated that towns with fewer than 400 people will not receive fibre. If the Government is serious about encouraging rural growth and employment opportunities, it would commit to extending fibre further so as to not discriminate against country towns.

7. Impacting business efficiencies and revenues, particularly for small and medium business, and Australia's export market; and the management of Australia's built and natural resources and environmental sustainability;

Like all businesses, farmers use the internet to create efficiencies. Popular uses by farming businesses include weather forecasting, purchasing equipment online, trading commodities, determining soil moisture and calculating efficient fertiliser content. The ability to email from the paddock, turn off irrigation remotely and monitor farms through satellite imagery has increased the profits and productivity of those able to access it.

Obviously, some farmers have benefitted more than others in the use of this technology. This is due to availability, knowledge, skills and price. For rural and remote Australians to get the most out of the NBN, it is essential that they have:

- Access to affordable internet, both through wireless networks and the NBN.
- The hardware and software necessary to go online.
- The knowledge and skills necessary to use the opportunities that high speed broadband present.

The ability to earn off-farm income through online businesses is very important to our Members. Diversification of income is a common goal of many farm businesses, and the NBN will provide the much needed opportunity to run online businesses in nearly any industry.

The Association itself would benefit greatly from being able to use video conferencing between Members and staff. Currently we rely on phone calls, email, teleconferencing and e-meetings for our communication.

It is vital that the Government not only provides access to the internet, but also education to ensure that the investment in the NBN is maximised.

8. Interaction with research and development and related innovation investments;

Included in the Rural Research and Development Council's terms of reference is the obligation to "*provide advice on improving communication and uptake of new knowledge and technology across all rural industries and at all scales of enterprises*".

The potential for the NBN technology to improve the extension of rural research and development and contribute to this stated goal is significant. Through the use of video conferencing, mobile internet communication and online communities, a two way flow of information on new technology will allow further uptake than ever before.

Through video conferencing our Members will be able to view seminars on a range of farming and business topics in real-time, whilst being able to ask questions and provide feedback. The ability to set up online communities with other farmers anywhere in the world will increase the flow of

information and ideas. Trials of new farming methods, technologies and equipment can be undertaken anywhere, with automatic feedback provided over the internet.

Unfortunately, there is no guarantee that all Australians will be able to use the technologies that have been mentioned above, even once the NBN has been rolled out.

9. Facilitating community and social benefits;

'Australia's Digital Economy: Future Directions' defines the government's role in creating a successful digital economy as:

- Laying the foundations for the nation's digital infrastructure:
- Facilitating innovation; and
- Setting conducive regulatory frameworks.

The Association feels that there is a strong need to also facilitate participation and educate of the possibilities the NBN will bring. Increasing social benefit is a goal shared by the Organisation for Economic Co-Operation and Development. The OECD's four goals of government policymakers when considering investment in the telecommunications sector:

- Improving connectivity;
- Increasing competition;
- Stimulating innovation/growth; and
- Increasing social benefit.

If a large proportion of Australia does not utilise the NBN because they don't know how to or don't know the potential benefits, this is an obvious hindrance to a successful digital economy.

There are a number of reasons why people will not know how to use the NBN. In areas which have previously had no or poor service, many residents will not have gone online, or will have made the choice not to based on previous bad experiences. Once the NBN makes broadband available, significant measures need to be put into place to ensure that the most is made of this enormous investment.

This issue is summarised by Dr Tim Williams in his paper 'Connecting Communities – The impact of broadband on communities in the UK and its implications for Australia':

> "'Rollout' is necessary but not sufficient without 'roll up'! 'Rollout' suggests that success in implementing a 'national broadband network' is a purely technical matter, with access achieved when inputs are committed. 'Roll up' speaks to the need to understand that success is achieved when the passive notion of 'enabling access' is replaced by an active reaching out to people to actually use this new tool". [3]

10. The optimal capacity and technological requirements of a network to deliver these outcomes.

Fibre, Wireless and Satellite
Due to the differences in speed and service between fibre and wireless/satellite, the Association has concerns that some benefits outlined in submissions to this inquiry, will not be available to our Members.

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[3] Williams, T. (2011) *Connecting Communities – The Impact of broadband on communities in the UK and its implications for Australia.* Huawei, Australia.

The Wireless Access Service and the Satellite Access Service will initially only offer Product Traffic Classes 1 and 4, with all four classes to be available 'over time'. Not having access to interactive streaming, real-time video and Transactional Business Virtual Private Network Access is a significant disadvantage. Furthermore, no details are provided in the NBN Co's *Corporate Plan 2011-13* for the quality of service for the 4% receiving fixed wireless. The use of the measure "average busy hour throughput" gives no guarantee of a usable internet service.

Mobile Telephones and Mobile Internet

The Australian Government defines the digital economy as: 'the global network of economic and social activities that are enabled by information and communications technologies, such as the internet, mobile and sensor networks.' The Association view the current issue of mobile phone and mobile internet blackspots as a key challenge for the Government.

Using mobile phones and tablet devices for mobile internet use is essential in business, and common place in the personal lives of many Australians. As the use the internet through 3G and similar networks increases, so does the disadvantage of those who live in areas which don't receive reception. On 15 February 2011 Telstra announced new 4G technology. Whilst full details have not been revealed, it is expected that this will be available in capital cities and regional areas by the end of the year. No mention was made of availability for rural residents.

This point is also relevant to the use of mobile internet in the form of USB modems. This technology is currently taken for granted by many, although is currently not available in many areas of Australia.

Whilst the Government has guaranteed access for all Australian through the NBN, the digital divide that exists in wireless internet technology in Australia is a serious concern. As the two technologies will be used side by side, and the use of wireless networks its growing rapidly, this inequity is of grave concerns to the Association.

If the Government is to be guided by its own definition of the digital economy, it will need to ensure that it widens its view to include mobile internet, both wireless and through devices such as USB modems.

11. Conclusion

NSW Farmers' Association remains strongly focused on ensuring high speed broadband internet is available to all Australians at pricing and service levels sharing parity across the board. Recommendations outlined within this submission are included in the hope that they will stimulate debate leading to the maximisation of the positive use of the NBN, and highlight the digital divide which will continue to exist once the NBN is rolled out.

The Association awaits the outcomes of this inquiry with anticipation and will continue to provide a voice for the concerns of rural Australians in this area both now and into the future. Please do not hesitate to contact us on the details provided should you require further information.