

National Farmers' Federation

**Submission to the
House of Representatives
Standing Committee on
Communications,
Information Technology
and the Arts**

**Inquiry into
Wireless Broadband
Technologies**

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1. Introduction

The National Farmers' Federation (NFF) welcomes the opportunity to provide a submission to the House of Representatives Standing Committee on Communications, Information Technology and the Arts Inquiry into Wireless Broadband Technologies

In response to the Inquiry's terms of reference, NFF will mainly address the following references from a rural and regional service end user perspective:

- The benefits and limitations on the use of wireless broadband technologies compared with cable and copper based broadband delivery platforms;
- The potential for wireless broadband technologies to provide a 'last mile' broadband solution, particularly in rural and regional areas, and to encourage the development and use of broadband content applications; and
- Whether Government should make any changes to the telecommunications regulatory regime to ensure that Australia extracts the maximum economic and social benefits from the use of wireless broadband technologies.

The basis of NFF's position is that:

- a) The timely provision of affordable wireless broadband services can partially address a number of current telecommunications service inequities in rural and regional Australia; and
- b) The adequate provision of appropriate skills development and awareness raising can further enhance the uptake of online service resulting in improved market choice.

The telecommunications Customer Service Guarantee enshrines inequality into service level standards for a significant number of non-metropolitan residents.

Relevant changes must be made to legislation to remove these inequities and to ensure the ongoing availability of affordable quality telecommunications services for all Australians.

The opportunity provided by the current implementation of a number of wireless technologies cannot be lost. The timely implementation of these services should be used to dramatically reduce the current inappropriate timeframes for new installations of both telephone and Internet services.

The natural marketplace progression of these technologies should be encouraged and where necessary supplemented to provide fixed "broaderband" Internet services to non-economic broadband cable locations as a matter of urgency.

Quality of service issues have resulted in too many rural Australians having a negative perception of online services. Why should they see relevance in a service that is slow, drops out, lacks content and that they don't understand? Enhancing the availability of affordable quality online services through the timely deployment of wireless technologies can assist in changing this perception.

Farmers and small businesses in rural communities have not had adequate exposure to the value of quality "broaderband" Internet services. They lack the skills and knowledge to maximise their online experience and subsequent outcomes.

All three tiers of Government should refocus their efforts on relevant skills development and awareness raising so that when combined with quality "broaderband" Internet services, can deliver tangible economic and social benefits for farmers and rural Australia.

2. NFF telecommunications policy background

NFF believes that the delivery of equitable telecommunications services in rural Australia requires Government facilitating an environment where:

- a) All Australians, wherever they reside or carry on business, should have timely access to affordable quality Internet and on-demand digital data services, as well as fixed and mobile telephone services;
- b) The telecommunications Customer Service Guarantee is changed to ensure that rural and regional quality of service standards are the same as metropolitan standards;
- c) More affordable digital telecommunications services in non-metropolitan Australia are accessible, preferably through competition in their provision; and
- d) A higher priority must be attached to the development and timely implementation of a whole of Government Online Service Provision Obligation so that rural Australians can interface with Government online.

NFF has identified a number of telecommunications quality of service issues that need to be addressed before telecommunications in rural Australia can be considered as “equitable”.

Many necessary enhancements are required to ensure the timely implementation of wireless technologies, revised provider work procedures and practices which can enable equitable service provision and at far more affordable costs to service providers than current methods.

A number of telecommunications providers currently provide solutions that are applicable to voice and “broadband” Internet data service. These can also assist in “future proofing” rural and regional Australia against long-term telecommunications service inequities.

The Government must provide minimum service level guarantees in legislation for voice and data telecommunications service quality, connections, faults and appointments that are based on equitable services in rural Australia.

It is suggested that the current community size based criteria for the telecommunications Customer Service Guarantee (CSG) should be replaced with non-discriminatory, non-population based criteria which apply to a revised CSG or service provider Customer Service Level Agreement (CSLA) standards.

The current inappropriate service level criteria apply to a high percentage of non-metropolitan telephone exchange areas. This may represent as many as one million services in rural areas.

For example, under the current CSG Minor Rural category, the current timeframe for installing a new service where there is no available infrastructure (eg no spare pairs in the cable running past the property), is six months.

This unacceptable timeframe can severely impact on the productivity of farming business practices. There are thousands of locations in rural Australia that are affected by the current inappropriate Customer Service Guarantee timeframes.

An opportunity exists for the timely implementation of new wireless technologies, revised work procedures and practices that can provide equitable service provision and at far more affordable costs to service providers than current methods. These solutions are applicable to voice and “broaderband” Internet services

Minimising the number of recurring service faults is also of great importance to rural and regional consumers. Farmers are concerned that short-term fixes and repetitive return visits to complete service restoration are inefficient for the customer and the service provider

The timely availability of Internet services that are better than the current dial-up or narrowband method of access is essential for farmers. The provision of “broaderband” services can substantially improve the quality of service and content options for a wide variety of rural and regional consumers.

Timeframes relating to installation and repair of a 64-kilobit per second digital service as currently defined in the Governments Digital Data Service Obligation should be no different to those defined in a revised CSG or CSLA.

The timeframes to install and repair the satellite or wireless service used to provide the 64-kilobit per second digital service outside the declared cable provision areas should be reduced to reflect the availability of the necessary resources and proximity to the nearest community service centre.

The availability of broadband Internet access services is also becoming essential for small business including farm enterprises in rural Australia. An increasing number of small business case studies have identified instant “always on” access to information and services provided by broadband Internet access can deliver dramatic benefits to the business bottom line and also provide opportunities for farming and business practice improvements.

Broadband Internet access services that are available in metropolitan Australia should also be offered on an equitable basis in rural Australia using a variety of technologies.

The equitable availability of these services should be reviewed on a regular basis.

Rural and regional Internet users should not be penalised by the distance based charging for online services. The use of location independent satellite services in Standard Zones should be encouraged to eliminate service provision inequities.

The Government should increase the Special Digital Data Service subsidy for relevant technologies, including wireless, to provide equivalent end-user pricing for Internet access irrespective of location.

NFF policy reflects the requirement by rural and regional Australians that the Government guarantee the ongoing provision of equitable telecommunication services and service quality for ALL Australians.

To facilitate this, the Government should introduce adequate carrier licence conditions, regulatory refinements and provide targeted Government funding that are necessary to “future-proof” the ongoing provision of equitable telecommunication services.

3. Farmers' online profile and perceptions

Farmers and rural Australians have identified quality telecommunications services and service improvements as a high priority. The specifics of the many definitions of broadband services currently have little meaning to someone who is only guaranteed an online data speed of 19.2 kilobit per second under the Government Internet Assistance Program when using a standard dialup telephone connect.

The 64-kilobit per second digital service as currently defined in the Government's Digital Data Service Obligation (GDDO) offers farmers and rural Australians to access online services using an affordable quality digital service. Recent significant pricing reductions now provide a GDDO service to a nominal range of 30 kilometres from an exchange at no additional installation or rental charge. There is still an appreciable difference in the user price for GDDO service provided by different technologies such as cable or satellite. Further Government attention is needed to address these inequities.

Although the availability of equitably priced broadband cable services from a number of providers are expanding slowly in rural Australia, the current range limitation of some 4 kilometres from an exchange and that only a small number of exchanges are being provisioned will be a significant inhibitor to the availability of broadband Internet services.

Rural communities need to access Internet services with sufficient throughput to enable them to meet their business, education and social needs. Market experience has shown, over time, individual users will increasingly demand greater bandwidth. Again the timely deployment of "broaderband" wireless Internet services and the provision of relevant content, skills development and awareness raising can help address this inadequacy.

At the end of May 2002, according to research from Nielsen//NetRatings, the average Internet user in country and regional Australia spent more time online and uses the Internet more frequently than the average user in metropolitan Australia.

In the first quarter of 2002, the average user in country and regional Australia accessed the Internet 33 percent more times for the average user in metropolitan areas and spent 21 percent more time online than metro users. Hopefully this was not a measure of call dropouts and slow connection speeds. The availability of quality digital services using wireless technologies could enhance this country user online usage.

Nielsen/NetRatings went on to say practical online services are also a key motivation in the bush for accessing the Internet and e-commerce businesses, as well as government, must recognise these Internet services are critical to the quality of life in the bush. This means they can't be left behind in any decision to invest in new infrastructure and content.

NFF has been saying for a long time that all Australians, wherever they reside or carry on business, should have timely access to affordable quality Internet and on-demand digital data services.

Although the latest ABS “Use of Information Technology on Farms” data is now dated, it showed that at June 2000 there was a 91% increase in the number of farms using the internet over the 15 months to June 2000 which far exceeded the growth in the use of computers for the same period.

Other information based on a significant sample, (again from the May 2002 timeframe) showed 28 percent of the farmers were in the 51-60 year age bracket and 24 percent were over 60. That is, 52 percent of farmers sampled were over 51 years of age.

Just over 50 percent of these farmers use the internet as part of their day to day activities on the farm and of those a massive 84 percent believed that learning more about the internet would enhance their farming business or family life.

Of the 84 percent who identified that learning more about the internet would enhance their farming business or family activities, some 48 percent stated that education related uses such as easy access to information, online training and education programs would benefit the farm.

Some 48 percent of farmers who are not currently online suggested they would consider using the Internet in the near future.

All these indicators clearly show the voracious appetite farmers have for the equitable provision of quality online services, and that having increased skills would make a difference to the farming business or family.

Affordable and timely access to a variety of online content can supplement existing services and provide farmers with new ways to conduct essential day-to-day business, eCommerce and social activities. The effective use of online services can clearly have a positive effect on the farm enterprise bottom line.

Farmers have specifically identified easy access to information, online banking, market updates, online training and education programs as services that would benefit the farm or family.

The use of telecommunications and online services as an alternative vehicle for delivering many Government, business and social services can affect the future viability of rural and remote communities and can significantly offset the tyranny of distance.

NFF recommends that both the supply and demand side issues relating to Internet service wireless broadband technologies should be considered as part of the inquiry.

An example of wireless broadband services currently being delivered that may not have received adequate attention is the provision of quality Internet service to the remotest parts of Australia as part of the Governments competitive Untimed Local Call (ULC) tender.

The successful tenderer agreed to offer the approximately 28,000 users in the telecommunications Extended Zones (EZ) covering some 80 percent of Australia's land mass a very affordable quality Internet service using two way satellite. Service entry and ongoing costs are considerably lower than those in metropolitan Australia with higher speed options also available at lower than metropolitan prices. At present charges after the end of the eighteen-month user contract period are unclear.

The offer being made is a unique opportunity to take up a very affordable quality online service. Preliminary analysis of uptake of the EZ 2 way satellite service would seem to suggest just under 50 percent of customers directly contacted have accepted the offer. Further analysis of a significant sample of the reasons given by those customers who did not take up the offer shows in excess of 55 percent were "not interested" or "had no PC, interest or intention of getting one".

This less than expected uptake of an offer where the inhibitors of affordability, quality and availability have been appreciably removed clearly indicates the urgent need for programs that can adequately address the provision of relevant content, skills development and awareness raising for farmers and rural communities.

Appropriate programs would need to focus on:

- a) The ongoing enhancement of relevant information and services provided online by all three tiers of Government;
- b) Encouragement by Governments and the provisions of incentives for the use of online services as a preference;
- c) Improved awareness raising of the availability, costs, value and increasing relevance of using online services; and
- d) Increased computer, online content and skills development opportunities for rural Australians of all ages.

The use of wireless broadband is just one of the additional "tools" that can be used to deliver quality Internet broadband services.

Rural users do not differentiate in relation to the technologies used for these delivery tools. Whilst there may be a difference in the time taken to deliver a new connection as well as reduced cost or improved availability for an individual service, from a rural user's perspective there is nothing inherently different in usage between cable and wireless services of similar bandwidth.

The NFF believes that the most efficient service delivery mechanism, whatever the technology, be used to meet the needs of farmers and rural communities for a fixed Internet service irrespective of location. Expanding numbers of overseas providers, including TELUS in Canada and Sprint in the US have found wireless technologies ideal to deliver Internet services.

Wireless technologies can also address an increased bandwidth requirement for a mobile market. This market can attract premium charges for higher bandwidth services. To be an effective service for rural Australia prices for fixed "broaderband" wireless Internet services should not attract a "mobility" premium and should be comparable, if not lower than, existing cable broadband services prices.

4. Rural wireless Internet service opportunities

A significant opportunity would seem to exist for Governments to facilitate the rapid deployment of wireless technologies that can provide rural Australians with a competitive choice of “broaderband” fixed Internet service options.

This opportunity relates the use of wireless to provide fixed online services as a priority over the provision mobile broadband data services where terrestrial services will not be available or more expensive satellite services are the only alternative.

Competitive Australia wide wireless broadband Internet services are now available via both one-way and two-way satellite from multiple suppliers. At last, there are now two Special Digital Data Service providers offering a 64-kilobit one-way satellite service.

There are also promising developments with services proposed by Unwired, that will be deployed in rural Australia. It is hoped that existing GSM mobile providers will deliver fixed Internet services.

A service that would seem to offer the greatest potential, at present, for farmers and rural communities is the provision of “broaderband” Internet services that should be made available by upgrading the significantly Government funded rural CDMA network to have a 1xRTT capability and the initiation of plans to further enhance the network to a broadband 1xEV-DO or greater capability.

Wholesale service and competitive access options would be a mandatory requirement for this infrastructure upgrade that could be undertaken solely as a commercial risk by current carriers.

NFF would be concerned if these developments were not available in all rural locations where a CDMA network is currently (or planned to be) available.

Recent Commonwealth initiatives have seen competitive tenders awarded for the expansion of both the GSM and CDMA networks. It has been suggested that the CDMA network will cover some 1.4 million square kilometres or 18 percent of Australia’s landmass by the June 2004.

Vendor supplied information suggests an upgrade of this network could provide adequate “broaderband” Internet services at peak forward rates of 153 kilo-bits per second and average rates of 70-80 kilo-bits per second to a radius of some 110 percent, where possible, of existing cell sizes, particularly if it was a fixed service. Overseas, upgrades of this nature have taken around six months to implement after planning and equipment supply phases.

NFF also believes that continued focus needs to be maintained to ensure that new and improved services are delivered to rural Australia in a timely manner. NFF continues to work with carriers, service providers and Government to ensure that industry pursues these opportunities in a way that delivers services at prices that encourage user uptake and in a commercially sustainable manner.

As an example, TELUS Mobility indicates their 1xRTT CDMA network covers more than 18 million Canadians in major urban centres across the country, including Victoria, Vancouver, Calgary, Edmonton, Winnipeg, Toronto and Southern Ontario, Ottawa, Québec City, Montréal and Halifax. They plan to further expand outside urban locations, including new service areas in smaller population centres and rural communities across Northern Ontario and Québec and to the United States through a roaming agreement with partner Verizon, later in 2002.

The TELUS website www.telusmobility.com suggests their national 1xRTT network offers mobile wireless data access as fast or faster than any current wireless service available in Canada. Capable of speeds as high as 144 kilobits per second (kbps) in ideal usage conditions, 1xRTT will offer typical service up to approximately 60 kbps, equal to or better than the speediest desktop modems now available.

A recent case study titled *“When Fixed and Mobile Wireless Collide”* by Timothy Sanders found at www.shorecliffcommunications.com has a sub-title *“Monet Mobile Networks Finds Itself Driven To Adopt Fixed Wireless Strategies by Customer Demand”*

The article goes on to champion the outcomes achieved by Monet Mobile Networks in delivering 1xRTT services and comments on their trials of broadband services with quotes such as, “In a trial 1xEV-DO system in Kansas, we’ve discovered that the technology’s theoretical data rates are around 1.8 Mbps downstream and 153 kbps upstream,” Kingston said. “We anticipate offering a ‘best effort’ service of about 600k down and 153k up to customers”

Sprint in the US recently announced the launching of its new nationwide 3G network, this mobile service offers the higher data rates of 50-70 kilobits per second that 1xRTT, or 3G, technology provide.

It would seem wireless broadband technologies are being delivered in a number of locations overseas and Australia should take this opportunity to offset some of the telecommunications service inequities in rural Australia.