ENQUIRIES TO:
Peter Greet
P 1300 268 624
P 07 4679 4000 (interstate)

FILE REF:
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RAM:PJG

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Customer Contact
1300 COUNCIL (1300 268 624)
07 4679 4000

www.**wdrc.qld.gov.au**

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Address all correspondence
to the Chief Executive Officer
PO Box 551, DALBY, QLD 4405

info@wdrc.qld.gov.au

WESTERN
DOWNS
REGIONAL COUNCIL

Mr Sean Edwards
Chair
2018 Regional Telecommunications Review Secretariat
Department of Communications and the Arts
GPO Box 2154
CANBERRA QCT 2601

Via email:- secretariat@rtirc.gov.au

Dear Mr Edwards

RE: SUBMISSION 2018 REGIONAL TELECOMMUNICATIONS REVIEW

I refer to the recent call for submissions by the Regional Telecommunications Independent Review Committee into telecommunications services in regional, rural and remote parts of Australia.

Council welcomes the opportunity to provide a submission to the review of telecommunications services in regional and remote Australia. Western Downs Regional Council has been an advocate for equitable telecommunications service delivery and access for our region for many, many years.

In February 2015 the University of Southern Queensland (USQ) delivered a case study on broadband services across the Western Downs Region. *"An Audit of Digital Infrastructure and Household Adoption and Use of Broadband Services: A Case Study of Western Downs Region"* was commissioned by Western Downs Regional Council, with the research study being led by Dr Michael Lane and Sanjib Tiwari of the USQ. Although the data collected is now three years old, much of qualitative research findings still hold true today. The findings of the study form much of the basis for Council's response to the call for submissions for this review.

A copy of the case study *"An Audit of Digital Infrastructure and Household Adoption and Use of Broadband Services: A Case Study of Western Downs Region"* has been attached to this submission for your information.

In response to your call for submissions into the review into telecommunications services in regional, rural and remote parts of Australia, Council provides the following information for your consideration.

1. **What are the main barriers to people in regional communities increasing their use of digital technologies and possible solutions for overcoming these barriers?**

Rural and regional Australia is grossly underserved in terms of high quality digital infrastructure, particularly access to reliable high-speed broadband internet services at equitable price points.

Due to low population density, distance, and the mix of technology available to deliver telecommunication services in rural and remote Australia, the quality of the services available is unlikely to match that delivered in metropolitan areas in the foreseeable future, if ever. Costs of data on the most viable, and therefore most used, service delivery platforms are higher for rural and remote Australians than that of their city counterparts.

Delivery of services over the mobile phone network is also problematic in many areas due to a lack of coverage, poor reliability in some instances and variable signal quality. Moves to new mobile telephony technology, such as 4G services, deliver higher data speeds but at the cost of lower network coverage footprints when compared to 3G networks.

The study found that those residents accessing services over 3G/4G and satellite networks are less satisfied with their services in terms of coverage, speed and reliability than those using fixed-line services such as ADSL and ADSL2+. In many areas fixed-line networks are simply not available to deliver digital telecommunications services. Reliable and cost-effective access to alternative networks is therefore very important, as is speed and data allowances.

Typically, fixed wireless, wireless and satellite technologies suffer degradation in service quality with more use - the number of users, the amount of data being transferred, or a combination of both factors, has a massive impact on service quality and useability. This is particularly the case during peak network periods from 3.00pm to 9.00pm weeknights. As these services are often the only options available for digital communication in rural and remote Australia, the impact on users in these areas is much greater.

The study conducted by USQ found that digital literacy is also an issue for many Western Downs Residents. This is likely to be the case across rural and regional Australia. Many residents in the Western Downs Region currently do not have the knowledge and/or skills to take advantage of digital technologies - the delivery of the technology platform is important, providing residents in rural and regional Australia with the skills and knowledge to make best use of it is critical.

Access to technology support services is problematic, particularly for small townships and rural (farming) residents. The skills to problem solve, repair and install technology solutions is often not readily available and comes at a higher cost due to the distances involved. Lack of support services hinders the use of existing technology and the uptake of new technology. This is an issue for both business and private users of digital networks.

2. How are people in regional communities currently using their broadband service and how might they increase the benefits of using this technology?

The study found that our residents principally use their broadband services for email, web browsing (information search), processing financial transactions (including banking), social media, news and accessing government services.

As new technology is deployed, costs of data decrease, speeds increase, and the way in which our residents and business can use broadband services does change. Increasingly, more data intensive services are being delivered across Australia via broadband networks e.g. video, IPTV. Rural and remote Australians require the same access to these services as metropolitan residents. The internet is no longer optimised for low speed, high latency connections - quite the opposite is true. This does impact those residents using mobile, fixed wireless and satellite internet services due to lower data allowances, lower speeds, higher latency and higher costs of these services compared to equivalent fixed-line services.

As discussed above, to increase the benefits of using this technology digital literacy needs to be addressed, as well as equitable access to technology support services in rural, regional and remote Australia.

3. What data-intensive activities are occurring in regional, rural and remote Australia? What digital technologies are need for these?

As discussed above, increases in data intensive services are being delivered across Australia via broadband networks e.g. data analytics, video, entertainment. With changes in technology teleworking is becoming an option that is increasingly available for rural and remote workers.

For industry, particularly agriculture in our region, the requirements to access digital telecommunications is becoming increasingly important as guidance systems, sensors, telematics and precision agriculture revolutionises farming.

Delivery of education and health services in remote areas can benefit from access to stable, high speed broadband internet services.

The internet is no longer optimised for low speed, high latency connections. This does impact those residents using mobile, fixed wireless and satellite internet services due to lower data allowances, lower speeds, higher latency and higher costs compared to equivalent fixed-line services.

Rural and remote Australians require the same access to these services as metropolitan residents. The NBN is being rolled out across the Western Downs Region, however NBN fixed wireless services have not yet been deployed. Once these services become available, they will provide a technology platform that will go some way to bridging the gap, although, once again, speed and data limits are often not as favourable as fixed line NBN alternatives.

4. How can regional businesses better utilise digital technologies to maximise economic benefits?

The study found that lack of access to high speed broadband internet is an impediment to strong economic growth - particularly for the agriculture and resource sectors.

To gain the maximum economic benefits from digital technologies our region needs access to services comparable to those provided in metropolitan centres, access to technical and information support services, and access to education to develop the skills and knowledge required to take advantage of the opportunities offered by digital technology.

5. What can be done to improve access to and uptake of telecommunications services in remote Indigenous communities?

No comment provided.

6. Are there practical examples of how communications services can improve the well-being of people in remote Indigenous communities?

No comment provided.

7. What skills do people need to get the most from their digital technologies, and where can they learn these skills?

The skills people need to get the most from digital technology includes:
  a. skills and awareness around devices, device availability and use scenarios i.e. what device is best suited to my needs;
  b. general skills around email, web browsing, social media;
  c. internet banking and transactional processing;
  d. online security - protecting yourself, your data and your identify;
  e. basic troubleshooting skills/where to find help; and
  f. basic skills in common operating systems - Windows, iOS, Android etc.

In terms of where they can best learn these skills, libraries, community centres, adult education programs, field days etc. all offer potential avenues for upskilling.

8. Have you had ongoing issues affecting your satellite broadband service? If so, how have you overcome these issues?

No comment provided.

9. If you are in an area with access to the Sky Muster satellite and you have not taken it up, why not?

No comment provided.

10. What economic or social indicators could be used to guide investment to further improve mobile coverage?

Indicators that could be used to guide investment to further improve mobile coverage could include major transport routes, areas with higher rural population densities (rural residential developments), coverage blackspots over prime agricultural regions, and areas where more intensive agricultural activities occur.

11. Is information readily available regarding how to use devices to improve mobile reception in areas with poor coverage? e.g. information about external antenna equipment?

No comment provided.

12. What emerging technologies will be of most benefit to regional businesses and what are the data needs of these technologies?

The Western Downs Region has an agricultural economic base. In terms of emerging technologies, the greatest technological impact for the agricultural industry will be seen in the development of the Internet of Things (IoT), big data (data analytics) - leading to better decision making, guidance systems, drones and agricultural robots, air and soil sensors, livestock biometrics, crop sensors, equipment telematics, precision agriculture, product marketing and access to global markets.

These technologies are data intensive - requiring reliable and fast networks to support their effectiveness at the local level, and for data analytics and support out of our region.

13. What broadband services are people using other than those available through the NBN?

The study found that many residents rely on the broadband services offered over mobile phone networks in preference to fixed line services. As the NBN is rolled out across the region residents using fixed line ADSL/ADSL2 services will be transitioned over to FTTN/FTTC or fixed wireless NBN plans.

As NBN fixed wireless services have yet to be rolled out across the region, there are currently several smaller internet service providers offering fixed wireless services for rural and remote residents. Some landholders are also installing their own fixed wireless infrastructure as the latency experienced on NBN satellite services does not allow for the efficient operation of their business, particularly catering to the large data requirements associated with emerging farming technologies highlighted above.

14. How can more competition be encouraged in the provision of broadband services in regional Australia?

A single provider of infrastructure with retail service providers competing in the market is seen as the best model for the delivery of reliable and cost effective broadband services in rural and remote Australia.

A model whereby service providers are encouraged to build their own independent infrastructure is not an effective means of delivering these services in regions with low population density and unattractive retail markets for broadband services - it is not financially viable.

The Mobile Blackspot Funding programs does provide beneficial outcomes in the delivery of the infrastructure required to provide mobile phone and data services in rural Australia, however the market needs to be considered in the distribution of these funds. As Telstra is the predominant

network provider in rural and remote regions it makes little sense to provide funds to establish infrastructure by other independent service providers e.g. a single Optus tower in the middle of nowhere is not going to provide the outcomes required when, for most rural and remote Australians, Telstra is the default mobile network service provider by virtue of its' superior network coverage.

Council would like to thank you for providing the opportunity to make a submission to the review panel.

Should you require further information please do not hesitate to contact Peter Greet, Customer Support & Governance Manager, on 07 4679 4000.

Yours sincerely

Ross Musgrove
CHIEF EXECUTIVE OFFICER

Encl. *"An Audit of Digital Infrastructure and Household Adoption and Use of Broadband Services: A Case Study of Western Downs Region".*