

## Introduction

As a background to my submission, I provide the following. I reside on the Bruce Highway in Queensland approximately 50km north of Hervey Bay. I do not consider myself to be in remote Australia, rural perhaps however I believe I am in, or close to, very reasonable sized communities. As a person who is mobile, having lived around Australia in my career, I rely entirely on my mobile phone for all calls and internet requirements whereby my laptop and tablet are linked through my mobile. I don't have a particular need for NBN and as I reach my retirement years, this is something I could never afford anyway, as with many things, as the gap between those with and those without, increases.

- 1. What telecommunications services are required in regional Australia to meet current and future needs? Are there any things regional communities and businesses need to do, but can't, on their existing services?**
  - a. Improved coverage. While the current claims mobile coverage is more than 99%, that coverage is certainly very poor in many rural areas, particularly in Queensland. Refer Conclusion below for further explanation.
  - b. Recently undertaking a role as a Field Manager for the Census, I was required to run a Zoom training session. Connectivity was so unreliable I relocated to a premises closer to a more populated area where the network could maintain more reliable 'upload speeds' required for conducting such a training session.

- 2. What changes in demand, barriers or challenges need to be addressed when it comes to telecommunications services in regional, rural and remote Australia?**

As Australia moves toward 5G networks, added to the closure of 3G, at the current time I fail to believe there will be any improvement in regional areas other than the larger population areas. Currently, I rarely get 'one bar' with 4G often resorting to 3G or H+ when attempting internet activity. Simply increasing tower signal capacity would be a dramatic improvement. As previously stated, it is not there is no signal, it is simply very weak. This has been my experience throughout Queensland, and quite unlike that in NSW.

- 3. How have the Government's policies and programs affected telecommunications service outcomes in regional, rural and remote Australia? How can these be improved?**

I am unable to offer much comment on this as I am not conversant with the Government's policies and programs regarding telecommunications.

- 4. How do service reliability issues impact on regional communities and businesses? How do outages, including in natural disasters, impact on communities and businesses?**

This response will address both of these questions: Service is so poor in and around my home that I can not sit in my lounge room, and have a conversation on my mobile. Routinely I am required to place my phone on a bench top some two metres from my lounge chair and utilise a Bluetooth ear piece. To use my mobile to conduct a routine internet search, I have to wait what feels like minutes and often the search times out. While it may be a bit of a cliché, I often make a coffee while I undertake such searches. When I link my laptop, the internet responds a little better however there are many times when I can't get a connection. During my recent employment with the Australian Bureau of Statistics the reality of the poor connectivity was evident. While receiving training via Zoom, I routinely dropped out of the sessions having to catch up as best as I could. It was this experience that led to me relocating when it came to me delivering training on the subject matter to Field Officers.

Regarding natural disasters, these things happen and, like the electricity network, outages are to be expected. My mobile service has rarely been affected by such natural disasters. That said, every time the wind gets up, my mobile reception is affected. I thought maybe I was imagining this however many of my friends in the area share this observation. Could the signal be so weak that it can be affected by a 15-knot wind?

**5. How might such impacts be addressed to ensure greater reliability? How can the network resilience be addressed in regional areas?**

One would need to have a greater understanding of the technicalities to offer opinions on how to improve resilience in the service. I am sure there is more to it than increasing tower numbers, or boosting signal strength, but if that's all it would take, then do it.

**6. How did the use of digital services change for regional consumers and businesses during the response to the COVID-19 pandemic? What insights for future service delivery does this provide?**

I have noticed no changes to digital service for myself, COVID-19 or no COVID-19 and in thinking on this question, was there a response specific to COVID-19? This leads me to the next point, as I have no idea of any COVID-19 response, therefore I am unable to offer any insight in future service delivery. When one considers recent the following recent article, supported by a number of medical studies available regarding the common cold, one may well ask why our Governments have become obsessed with the 'Delta strain': <https://www.abc.net.au/news/2021-07-02/delta-coronavirus-variant-symptoms-vaccines-spread/100255804>

**7. What can be done to improve the access and affordability of telecommunications services in regional, rural and remote Indigenous communities?**

This is a complex issue. The obvious answer would be to make all services more affordable. That said, I am more than happy with cost of my mobile service with Telstra. My specific plan accommodates all my needs and is quite affordable while providing the widest coverage of any of the telcos, albeit poor in Queensland.

**8. How can investment in telecommunications infrastructure work with other programs and policies to encourage economic development in regional Australia?**

With the recent exodus from metropolitan areas in Australia by people wishing to flee community lockdowns due to COVID-19, there needs to be far greater urgent investment in rural telecommunications if those who have migrated are to contribute to the nation's economic development. How can the investment help? I would think this would be obvious, the question to be addressed here is, 'Who' is going to invest? If there is a potential for a decent return, perhaps this is something that Australian superannuation companies could consider, if they are not already doing so.

**9. What role could innovation, including new models, alternative investors or new ways of doing business, play to encourage investment in regional telecommunications infrastructure? What are the barriers?**

Not being a financial guru, other than the previous statement, I don't believe I'm qualified to offer any suggestions.

**10. To what extent will new technologies enable significant change to the delivery of telecommunications services in regional Australia over the next 5-10 years? Are there any barriers to accessing these technologies?**

- a. Technological advancement will significantly enable change in delivery. The 5G network is the most recent example of this however, without stepping into the world of science fiction, global telecommunication satellites may provide the answers to resolving the issues of rural and remote connectivity.
- b. The only barriers I see are will and funds. The technology is already there however it requires much improvement. The time may come whereby local communication hubs are networked with satellites. Calls and data would be transmitted to local towers, eg 5G (or whatever may come next) then transmitted via satellite to other towers either nationally or internationally.

**11. How can Government better support the rapid rollout of and investment in new telecommunications solutions in regional areas?**

Freeing land for the use of towers or other infrastructure as may be required. Cut red and green tape to speed up processes. Provide low-cost loans albeit with strict compliance on specified outcomes.

**12. How can different levels of Government, the telecommunications industry and regional communities better co-ordinate their efforts to improve telecommunications in regional Australia?**

This a national issue. The less State and Local Governments are involved, the better. These two lower levels of Government have a vested interest in ensuring improvements and therefore should not stand in the way of the required infrastructure being built, beyond a community consultation process at least. Any authority given to these levels of Government would only see it spiral into a dysfunctional grab for power not unlike the current 'National Cabinet' which has produced very little in the context of strong governance or leadership. Many of the decisions are based on individual State, Territory and Federal political focus groups. This view is supported by the successful re-election of State and Territory Governments where many have not provided pre-election budgets and in some cases, hadn't even sat to answer questions and debate legislation.

**13. What changes to Government investment programs are required to ensure they continue to be effective in delivering improved telecommunications?**

I believe several previous comments may be referred to in considering my thoughts on this issue.

**14. How can regional consumers be better supported to identify, choose and use the best connectivity options for their circumstances, as well as to understand and use their consumer rights?**

Mmm, I think the question writers were running out of ideas with this question. I believe most Australians that actually take an interest in their technological environment are savvy enough to find their own way, as long as there is no deliberate attempt to create barriers.

**15. To what extent is public information on connectivity options, including predictive coverage data and speeds, sufficient to help regional customers make informed decisions? What other information is needed?**

The current information, particularly coverage areas, is a complete waste of time. Coverage is worthless if the actual coverage is poor. As I sit here now, a Telstra speed test indicates I have a 32ms Ping, a 7.6mbs Upload (which is exceptionally high for me however there is no breeze at the moment) however the Upload speed is only 0.4mbs.

This makes video calling via apps such as Messenger difficult, particularly when the person at the other end is experiencing similar speed issues. Neither of us live in the back of beyond.

**16. What other matters should the Committee consider in its review and why are they important?**

At this point I will simply provide a Conclusion including my experiences regarding rural and remote locations.

Conclusion: Throughout my working life I have employed as a Fingerprint Identification Specialist. I have exercised professional mobility and have been given the opportunity of living and working in a number of States and Territories. Generally, this has required me to reside in city areas and as such I have found connectivity more than sufficient. That said, in the last 10 years I have travelled 285,000km around Australia car, I have lived in towns such as Marla in Sth Australia (234km north of Coober Pedy) and in the NSW Riverina.

My travel adventures have taken me across to Perth and back, repeated trips between Adelaide and Darwin and Melbourne and the NSW Riverina. While travelling, with the aid of a Bluetooth earpiece device I spend considerable time keeping in touch with family and friends. It is my experience this keeps me alert for the long drives while assisting with the passing of time. A record of zero driving incidents would, I believe, support this belief.

Throughout this driving I have always been able to maintain continued mobile service with the exception of the obvious 'gaps' travelling in the vast remote areas such as that in sections of the Nullarbor and Stuart Highway between Adelaide and Darwin. Coverage in towns along this Highway generally provides good coverage, another reason I have stuck with the Telstra Network.

In all my travels in NSW my only experiences of having no network connections in the eastern portion of the State have been north east of Binalong on the B94 however this only lasted for about 10 kms. In addition, a 5km stretch of the Holbrook Road, approximately 10km south of Wagga Wagga was a poor area.

The NSW east coast from Sydney to the Queensland provides good mobile service and I recall no specific issues in any specific locations. Of course, many areas further west in NSW where there is no significant population is usually a problem once beyond the townships. These are areas which could be accommodated should the future hold a satellite solution.

Now, my Queensland experience. I believe telcos have forgotten Queensland. As stated previously, my local connection is extremely disappointing generally having only one bar of 4G which severely affects internet reliability. Taking this further however, there are stretches of the Bruce Highway immediately south of my location, which is an extremely busy section of this east coast highway, where a mobile call can not be maintained. There is simply no signal. I find this incredible as this is by no means remote, or for that matter extremely rural. There are many other areas in Queensland such as the Darling Downs region where I have had difficulty in maintain mobile coverage. Whilst I can not recall specific areas, I do have recall whereby I have had to wait to reach a township to get reception. That said, there is evidence of many people living in those areas.

I trust this Review Committee is able to satisfactorily answers the question set out in the Issues Paper and in doing so actually achieves successful outcomes for the future of telecommunications in Australia.