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?

Business grade NBN and mobile services are required in regional areas to ensure the future of our towns. Australia wide communities are struggling to survive due to the decline in population. There are many reasons for this and some of these reasons can potentially be addressed with improved telecommunication:

- Liveability the same access to online services as other members of the population.
- Economic development the ability to sustain a business in a rural community through access to online technology and customers.
- Teleworking ability to work remotely from regional towns.
- Health Services many regional community members must travel for hours or even move permanently to receive diagnosis and treatment.
- Safety telecommunications are essential during disasters, every moment counts for remote communities.

High speed and reliable telecommunications are essential.

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

Many telecommunications providers will only increase coverage when demand reaches a certain point which creates a catch 22 situation. How do communities attract people to live in their regions without suitable telecommunication coverage?

Costs can also be a further barrier - often regional areas are not provided with the lower costs that cities enjoy.

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

The Black Spot Program has benefitted many regional areas however, telecos have set criteria for the submissions, the support which often excludes our remote regional locations. Perhaps funding incentives that includes the provision of backhaul also.

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

See question 1.

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

Resilience can be improved through an expanded NBN rollout, additional mobile towers, subsidies for residential and business microcells and telco roaming.

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?

COVID highlighted the need and desire to work remotely. People now expect to be able to work from anywhere which is great for those looking for a lifestyle change also. Regional Australia will miss out on the ability to attract these residents if we are unable to provide the desired services.

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

Federal and state subsidies aimed at local governments rather than the Telcos.

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

Telecommunications and economic development are entwined - population retention, business attraction, innovation, teleworking, education / training. All programs must ensure telecommunication funding is included to ensure a successful outcome.

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?

Many regional areas don't have the population that is attractive to telcos, however many of these areas have multimillion-dollar industries such as mining, agriculture, energy - perhaps there is a partnership potential there for the community in which they operate.

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?

5G will provide the speed that will enable telehealth in regional areas. However, 5G cells have a much lower radius which could be problematic in regional areas.

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

Additional funding that is targeted specifically for remote locations from a liveability perspective and not just blackspots.

- 12. How can different levels of Government, the telecommunications industry and regional community's better co-ordinate their efforts to improve telecommunications in regional Australia?
- 13. What changes to Government investment programs are required to ensure they continue to be effective in delivering improved telecommunications?

All aspects to be included not just the building of towers, i.e. backhaul, subsidies, service guarantees. Roaming between services providers will improve continuous coverage when moving within the region.

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?

Federal government sites showing comparisons in costs, coverage, speed and resilience.

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

Funding provided to local governments rather than telecommunications providers - Local government could then co-fund the construction of towers in locations not traditionally attractive to telcos.

Region Overview

The Western Downs is located in the Darling Downs, approximately 207 kilometres north-west of Brisbane and 83 kilometres north-west of Toowoomba. The region encompasses the centres of Chinchilla, Dalby, Jandowae, Miles, Tara and Wandoan.

The Western Downs has been one of Australia's fastest growing regional economies over the past five (5) years. Combining country lifestyle with modern living and conveniences, the Western Downs enjoys a well-rounded and diverse economy.

The region has a population of 34,4579 in 2020 which is forecasted to grow to 39,797 in 2041. 4,711 businesses are operating in the Western Downs region.

A strong network and coverage of telecommunications and digital connectivity is required to support and advance regional Australia and enable further economic growth.

Whilst the major centers in the Western Downs enjoy reliable telecommunications and digital connectivity, many rural areas across the region face issues when it comes to access, reliability, and speed. Although these areas have a low population density, they are vital to the Western Downs' economy and contribute significantly to Queensland's economy.

The Western Downs' GRP has increased by 65% over the past five years to \$5.5bln in 2020. The Western Downs is a powerhouse in regional Queensland, with some of the strongest investment per capita in the country.¹

Being Australia's major energy hub, the region sees an influx of renewable energy projects generating almost \$4 billion, with most of this either already underway (\$2.39 billion) or approved and awaiting commencement (\$1.36 billion. Next to the renewable energy industry, the Coal Seam Gas (CSG) sector continues to deliver extensive investment in the region, with a strong line-up of expansion projects.²

Agriculture remains to underpin the region's economy with the intensive animal sector in particular seeing strong investment and expansion. With strong agriculture and energy sectors across the region, there is a myriad of opportunities in manufacturing to value-add.³

The Agriculture and Energy industries operate mostly outside of the major centers in the region. Strong Telecommunications and Digital Connectivity are vital during the construction period and when operational. To demonstrate this, "Economic modelling from the Accelerating Precision Agriculture to Decision Agriculture project indicates that digital agriculture could increase the gross value of Australian agricultural production by \$20.3 billion, a 25% increase over 2014-15 levels. The greatest gains are expected to come from remote monitoring, automation, better tailoring of inputs such as fertilizer and seed, and environmental benefits such as efficiencies in water and pest management."

¹ The Western Downs Development Status Report, June 2020, Toowoomba Surat Basin Enterprise

² The Western Downs Development Status Report, June 2020, Toowoomba Surat Basin Enterprise

³ The Western Downs Development Status Report, June 2020, Toowoomba Surat Basin Enterprise

Telecommunications

In 2016, the Department of communications and the Arts received nominations of regional locations with poor or no mobile coverage from members of the public, State, Territory and Local Governments and Members of Parliament.

Figure 1 demonstrates the reports of poor or no mobile coverage in the Western Downs Local Government Area. Figure 2 demonstrates the base stations that were funded consequently across Rounds PL, 1, 2, 4, 5A and 5 of the Mobile Black Spot Program.

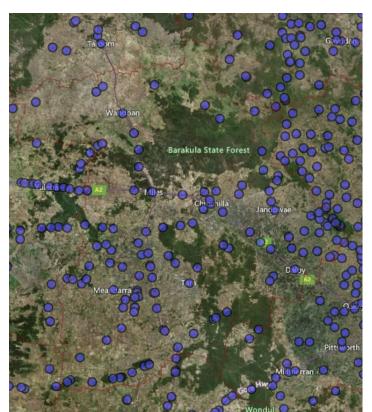


Figure 1 Community Reports of Poor or No Mobile Coverage, Department of Communications and the Arts



Figure 2 Mobile Black Spot Program Funded Base Stations Rounds PL to 5, Department of Communications and the Arts

To date there are still areas in the Western Downs region that have unreliable telecommunications service. Ensuring a strong telecommunications network is of vital importance to ensure that residents in rural areas can connect with others to prevent isolation.

In addition, they need to have the ability to call emergency services when needed, have the ability to work remotely and access telehealth and other services.

Digital Connectivity - NBN

The rollout of the National Broadband Network (nbn co) is considered completed. The Western Downs region is connected through a variety of connections, ranging from fibre to the premise, fibre to the node, fibre to the curb, fixed wireless and via satellite. Figure 3 to Figure 9 showcase the different connections in the Western Downs and the towns.

It is noted that Dalby, Chinchilla and Miles have a fibre connection in the town centres, whilst Jandowae, Tara and Wandoan town centres are connected via fixed wireless. Whilst Dalby has been classified as a Business Fibre Zone is since August 2021, there is no fixed wireless connection in Chinchilla of which surrounding properties can benefit. Most properties in between town centres are connected via satellite.

Connections via satellite are considered to have a reduced speed and are more susceptible to weather conditions and outages. A strong and reliable connectivity is required for agricultural and energy businesses to adopt digital technologies and innovation to increase output.

The COVID-19 pandemic has accelerated digital transformation of businesses and industries, and digital adoption has accelerated by several years. Remote working arrangements have become more common, which offers great economic development opportunities for regional Australia.

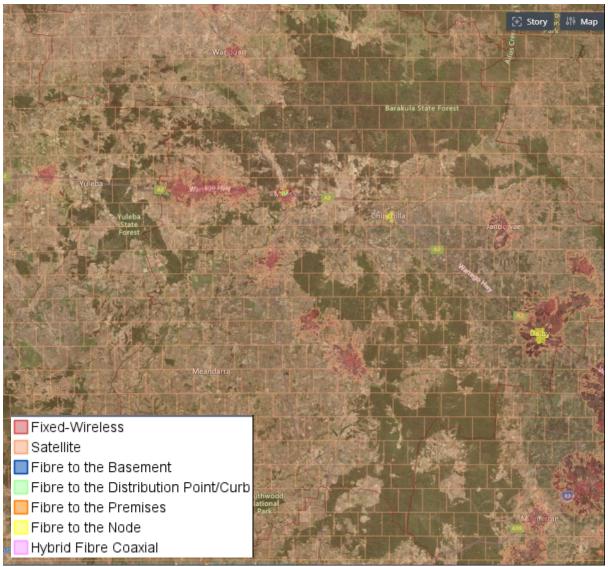


Figure 3 National Broadband Network, Western Downs Connections by Technology Type, July 2020

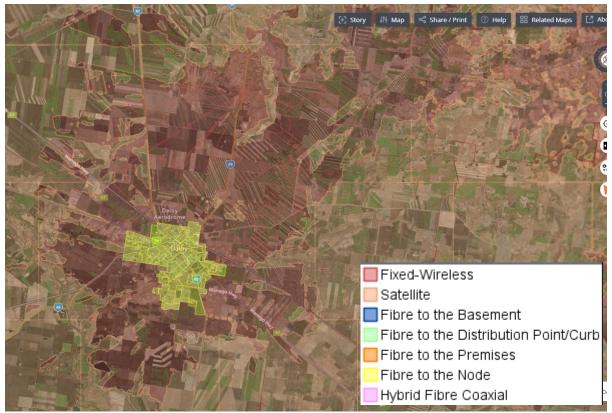


Figure 4 National Broadband Network, Dalby Connections by Technology Type, July 2020

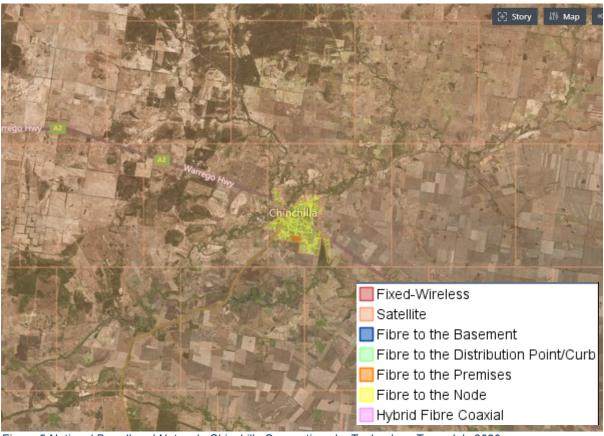


Figure 5 National Broadband Network, Chinchilla Connections by Technology Type, July 2020

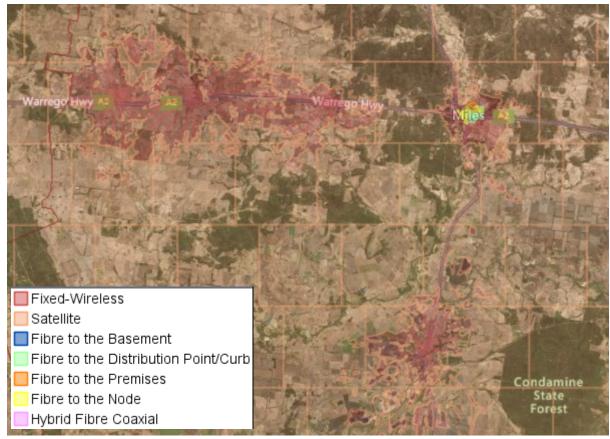


Figure 6 National Broadband Network, Miles Connections by Technology Type, July 2020

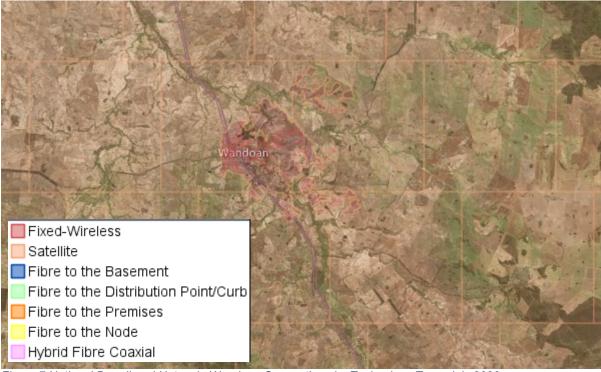


Figure 7 National Broadband Network, Wandoan Connections by Technology Type, July 2020



Figure 8 National Broadband Network, Jandowae Connections by Technology Type, July 2020

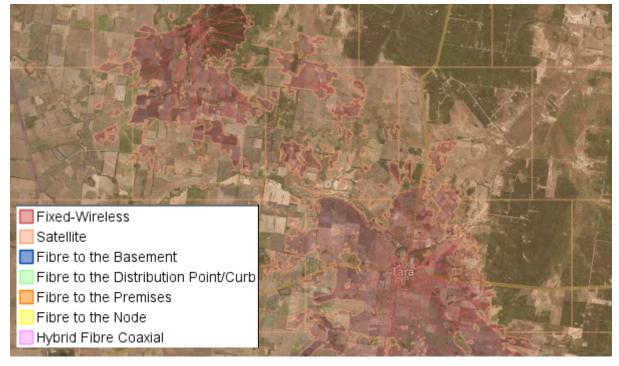


Figure 9 National Broadband Network, Tara Connections by Technology Type, July 2020