

8 September 2021

Macedon Ranges Shire Council – Submission to the Regional Telecommunications Review 2021

Regional communities need access to fixed and mobile telecommunications to access work, education and health services; to communicate during emergencies and to maintain social interactions. Increasingly there is little distinction drawn between mobile and fixed services by business and communities. Provision of telecommunications services needs to be viewed on a holistic level irrespective of delivery methods.

Regional businesses are finding that poor access to telecommunications is severely impacting upon their ability to trade effectively when customers are unable to utilise mobile connections to check in on entry using QR codes for COVID tracing. Further, when attempting to pay using EFTPOS, customers are unable to complete a transaction in areas where mobile connection is unavailable or unstable.

Impacts on regional businesses were highlighted to Macedon Ranges Shire Council at a briefing presented by the Woodend Traders Association 13 July 2021. The traders recounted numerous examples of customers leaving without purchasing as transactions were unable to be completed. Other examples, where customers were looking for additional information through websites or images in their own files and were unable to access, again left without purchasing.

Regional Australia is experiencing increased demand for telecommunications as more services are moved to online delivery, a larger proportion of the workforce work online, more students study remotely and the overall regional population increases. The volume of activities being undertaken is increasing as are the data, stability and bandwidth requirements. Video calling, real time collaboration and use of virtual networks are all increasing. These applications are hampered by network availability, stability and latency issues.

With more dispersed and smaller population centres than metropolitan Australia, regions experience barriers to equitable service availability. This is the situation with both fixed and mobile telecommunications.

Coverage maps for both the Optus and Telstra mobile networks, available online, show areas of Macedon Ranges Shire with poor mobile coverage. Increasing mobile coverage in Macedon Ranges has particular challenges. Lower return on investment for infrastructure providers due to small population clusters and geographic features of hills, valleys and wooded areas. Additionally Macedon Ranges Shire has significant landscapes designated. The need to protect these areas restricts some locations from being considered for telecommunications infrastructure.

A survey conducted in Macedon Ranges Shire May 2021 identified that over 70% of respondents are not satisfied with their current reliability. Service reliability impacts on the ability of regional communities to actively plan and participate in business, social, learning and health activities online. The Macedon Ranges Survey specifically asked respondents what services or activities they had been unable to undertake due to a lack of connectivity. Just under 60% of responses referred to being unable to access education and over 90% identified they were unable to work effectively from home. This is always a significant issue but during the current COVID response environment this lack of ability to continue to participate is impacting students' ability to continue their studies and workers' ability to earn an income.

During natural disasters communication is critical. Patchy mobile connectivity severely impacts communities' ability to act, react and stay safe. During recent storm events Macedon Ranges community members were left without effective communication where interruptions to power supplies lasted longer than the battery back up at infrastructure points. The inability of service providers to access their infrastructure safely to install generators extended this outage for days. This left communities isolated and unable to make contact.

Currently there are duplicate mobile network installations across regional areas. Often black spots are not duplicated due to infrastructure placement. Use of network roaming options could provide a more resilient provision of connection where one provider can provide additional capacity to subscribers of another network. Particularly during emergency situations this has a significant ability to provide a more resilient overall network without imposing unrealistic redundancy requirements on network providers.

Co-location of network infrastructure; NBN fixed wireless and mobile, has the ability to reduce the need to find multiple suitable sites, place duplicate infrastructure in the same location and to increase the speed of network rollouts to address black spots.

COVID restrictions have changed the nature of society and the adoption of technology in many circumstances. Stay at home instructions meant home schooling was undertaken by many families. Equally many workers followed the requirements to 'work from home if you can'. With restrictions on reasons to leave home many consumers moved to a greater level of online shopping, necessitating retailers to increase their own use of telecommunication services. Each of these changes increased the demand on household telecommunications services. Individually this increased the need for bandwidth and data allowances, collectively this has put pressure on those connections that struggle. Households found that the need to have multiple users, using higher bandwidth applications simultaneously, overwhelmed the capability of their connection, or exceeded their plans data allowance. NBN plans focusing on typical evening speeds, as peak demand time, no longer has relevance to many households.

Investment in regional telecommunications infrastructure is impacted by the distances between users, the landscape and density of user clusters. Technology advancements have the potential to provide innovations that overcome some of these barriers and change the value proposition for investors. Support for development of solutions is a potential that could be explored. Incentives for network providers to consider or adopt co-location of infrastructure can encourage investment and alternative models.

New technologies offer the promise of more efficient, wide reaching and cost effective solutions, all fundamentals that will ultimately have an impact on services in regional Australia. The reality is often quite different, with new technologies ultimately being rolled out in higher density user environments before filtering out to regional areas over time. The same barriers affecting rollout of current technologies impact on the deployment of new technologies into regional areas, low number of users, low density of users and ultimately cost.

Regional telecommunications infrastructure services a typically smaller and more dispersed community than in metropolitan areas. The distance covered is often larger and crosses landscapes that can be significantly impacted by the addition of the equipment.

This hampers rollout and investment due to higher proportional costs and lower return on investment rates. The National Broadband initiative consolidated infrastructure under a single provider and facilitated multiple service providers to access customers without duplication of costs and infrastructure.

Facilitating collaboration for service providers to access suitable infrastructure, through cooperative agreements to access fast track funding, has the potential to increase the rapid deployment of telecommunications in regional areas, particularly of mobile technology.



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Increasing incentives to service providers, through initiatives like the various rounds of Black Spot funding, has increased the reach of networks. Continuing this funding and incentivising collaborative investment by multiple providers could improve outcomes for regions.