

Submission to the 2021 Regional Telecommunications Review

Introduction

TelSoc (the Telecommunications Association Inc.) welcomes the 2021 Regional Telecommunications Review and the opportunity to contribute to the important work of the Committee.

TelSoc has been concerned to promote the telecommunications industry and to achieve the social and economic benefits of the industry's development since the inception of its antecedent organisation in 1874. Our specific interests and aims for telecommunications, and particularly for broadband, in Australia were outlined in our report, *Towards a National Broadband Strategy for Australia, 2020-2030*, which was publicly released in November 2020 and subsequently published in TelSoc's *Journal of Telecommunications and the Digital Economy*. A copy of the report is also included with this submission.

TelSoc's proposal for a National Broadband Strategy has clear linkages with the terms of reference of the Regional Telecommunications Review. In addition, TelSoc has undertaken considerable work and conducted forums since 2019 that have provided useful perspectives and insights into specific aspects of providing telecommunications, and particularly broadband, services in regional and rural areas. We wish to ensure that those perspectives are made available for the current Review.

Below we comment first on our own work that has relevance for service provision in regional and rural Australia, and then proceed to address issues raised by the Review's terms of reference and by those questions in the July 2021 Issues Paper where TelSoc has a considered view. We note that there are many organisations with specific operational experience and value to contribute to the Review. We have not offered general opinions or comment except where we believe we can add value. For that reason, we have not sought to address all of the questions that you have raised.

Towards a National Broadband Strategy for Australia, 2020-2030 and related work

The proposal for a bipartisan National Broadband Strategy resulted from the work of TelSoc during 2019 and 2020. TelSoc conducted five public forums in this time - [*Encouraging Debate on NBN Ownership Models*](#); [*Realising the User Potential of the NBN*](#); [*Learning from International Experience*](#); [*Telehealth and Digital Inclusion*](#); and [*A National Broadband Strategy for Australia*](#) - and prepared discussion papers such as that on *Extending the Social and Economic Benefits of Australia's Broadband Networks: Action in the time of COVID-19*. All of the issues canvassed in these early forums had relevance nationally, but the forum on telehealth and digital inclusion had particular relevance to rural and regional Australia where both health and broadband service delivery pose greater challenges and need special programs to meet the standards and expectations taken for granted in urban areas.

TelSoc has continued to conduct forums in 2021, namely [*Regional and Rural Broadband Access – City standards in 10 years?*](#); [*The Rise of 5G*](#); [*LEOs and how they differ from GEOs*](#) and [*Affordability of Broadband Services*](#). All of these forums laid heavy emphasis on exploring the particular challenges of delivering broadband services to regional Australia.

Key regional telecommunications issues addressed by TelSoc

There are four key issues that we discuss in this submission, namely:

1. **Longer term continuity:** The need for a long-term, strategic context and for policy continuity;
2. **LEO satellite potential:** The potential for new technologies, and particularly for LEOs, for the provision of regional and remote services;
3. **Inclusion and Affordability:** The need for telecommunications policies generally to facilitate greater social and economic inclusion and affordability by ensuring that all people regardless of economic circumstances and location are able to participate in the digital economy and online society; and
4. **Regional pricing:** The need to review the regulatory settings for regional telecommunications pricing.

1. Longer term continuity

Questions 8, 11, 12 and 16 of the Issues Paper relate to the issues TelSoc wishes to raise here.

TelSoc considers that the broader public interest and the interests of telecommunications users in regional Australia are best served by a longer-term perspective being applied to the challenges that need to be addressed. This is a major theme in our 2020 National Broadband Strategy report, and is an approach that needs to be contrasted to short term policy and program interventions to address trouble spots as they emerge.

Continuity of policy frameworks over the longer term, with updating to incorporate responses to new circumstances and changes as they emerge, is the approach best suited to facilitate investment in telecommunications infrastructure in regional areas, and in the industries and communities that need modern telecommunications infrastructure and services.

The current Review is one that is mandated to be conducted every three years under the *Telecommunications (Consumer Protection and Service Standards) Act 1999*. It is important for continuity and overall accountability that each review should reference an understood national strategic approach and consider the recommendations in previous reviews, and the responses of the Government, the industry and the community to those recommendations. In other words, the Review should be seen as much more than an isolated intervention with little connection to a broader strategy and previous reviews.

In other words, we consider that such a Review should be conducted in the context of a long-term strategy – with clear objectives and related measures and targets – and should include an assessment of progress against that strategy and the barriers that have arisen in achieving it, and consequent proposed modifications to strategic directions and specific actions.

As such, a Review such as this in 2021 would be closely linked to other periodic reviews, in particular to the Edwards Review of 2018, and would take as a starting point the outcomes of that previous review and the evidence base subsequently accumulated. Further, the regional aspect would be one important component of broad-based reviewing of a long-term strategy.

The 2018 Edwards Review is barely mentioned in the Issues Paper (at pages 5 and 13), yet it contained important recommendations which bear examination as to their intent and current status. Particular attention should be drawn to the following recommendations of the Edwards Review:

- Recommendation 1 for NBN Co to provide transparency about planned future technology upgrades and indicative timings of these upgrades in regional, rural and remote areas: This recommendation goes to the kind of long-term strategy TelSoc has in mind, with ubiquitous targets against which such plans can be assessed, such as those that are implicit in the objective in the Digital Economy Strategy (p 28) in the “next two years“ to “Ensure 75% of homes that get a fixed line NBN can order gigabit NBN”.
- Recommendations 7 to 10, which provided a focus on Digital Inclusion which remains a matter requiring broad attention: to the extent that TelSoc has proposed a particular Review of Inclusion and Affordability of Broadband Services to better define these concepts, establish measures and standards, and propose programs to scale (provided as an attachment to this submission).

It was pleasing to note that the point we are now stressing about continuity was picked up and asserted by the Review Chairman, Mr Luke Hartsuyker, in his speech to the 2021 ACCAN Annual Conference on 8 September 2021.

The specific actions and recommendations that TelSoc proposes are:

- The Review should not be constrained in its recommendations to the Government by short-term considerations and should specifically consider longer term challenges and measures relevant to the provision of telecommunications services to regional, rural and remote areas and communities in Australia.
- The Review should promote the concept of a National Broadband Strategy in which its deliberations can be seen as a key 3-year monitoring process with a particular regional focus.
- The Review should consider the recommendations of the 2018 Review and the adequacy and status of the responses to those recommendations, taking account of changed circumstances and opportunities that have arisen since then.

2. LEO (low earth orbit) satellite potential

Questions 1,7, 8, 9, 10 and 11 of the Issues Paper relate to the issues TelSoc wishes to raise.

TelSoc has facilitated industry and user discussion on the possibilities for new and emerging technologies for meeting the telecommunications service challenges of regional, rural and remote Australia. This has taken two forms: (1) Forums on LEO satellite technology developments, and on affordability of broadband services; and (2) discussion with organisations involved in providing services to rural and remote locations and communities, particularly Indigenous communities.

Amongst the communications challenges of regional, rural and remote communities that have been discussed with TelSoc and at its forums are issues associated with no or limited coverage, no or limited backhaul, low data speed and high latency issues with GEO (geographic stationary orbit) satellites.

TelSoc became interested in the possibilities of LEO satellite systems through our work on digital inclusion, particular in rural areas with high connectivity costs and low scale, and on the possibilities associated with ubiquitous satellite coverage and low latency.

Our forum and discussions on LEO satellite developments suggest the following:

- LEO satellite systems have much lower latency than GEO satellite systems and services, such as NBN Co's SkyMuster and SkyMuster Plus, because they operate at much lower altitudes. LEO satellite systems do not replace GEO systems, but complement them and address circumstances where different characteristics can be delivered more cost effectively.
- Latency is particularly an issue for the provision of voice services and delivery of intelligible conversations as well as for access to many applications that depend on very rapid responses. Latency may be less important for many agricultural sensing monitoring and surveillance applications.
- NBN Co has improved its satellite-based services, in the experience of many rural customers, with the introduction of the SkyMuster Plus service, but it is not fit for low-latency applications and remains problematic for voice.
- There are a number of global LEO systems that are progressively providing coverage. All appear to be addressing Northern Hemisphere needs initially, but their satellite orbits cover Australia and it is understood that full commercial operations will be possible for Australian customers in the next year or so.
- Some of the LEO system operators have expressed enthusiasm for working through local operators and service providers to deliver services at enterprise, community and household levels. Different business models are being adopted by different LEO systems operators. We understand that some, such as OneWeb, are keen to establish relationships with local operators and agents and to develop cooperative supply chains, whilst others have indicated a preference for direct relationships with end users.

- LEO constellations and services are developing fast. To gain maximum benefit, Australian stakeholders need to engage at the earliest time.
- TelSoc is not aware whether or not NBN Co has entered into any arrangements for provision of services via LEO satellite systems, or the extent to which NBN Co remains committed to providing broadband services to rural and remote communities via its SkyMuster (GEO) satellite service alone.

TelSoc does not have a role in promoting particular technologies or advocating preferred solutions. Our interest in LEO satellite services is as a potential means of cost-effectively addressing some of the unfulfilled needs of rural and remote enterprises and communities, including unconnected Indigenous communities in remote settlements, and so to ensure that all options are fully considered and exploited to the extent that they can be. LEO satellite systems can provide broadband backhaul capacity in areas without fibre or other terrestrial alternatives. They can then work in conjunction with local WiFi systems for limited distribution at a community or enterprise level. Beta and initial trials in New Zealand indicate how this might be undertaken in Australia.

Importantly, many large regional and national service providers do not have any presence either in, or within reasonable distance of, smaller rural and remote communities. People in these locations have developed high levels of adaptability and resilience and may work around many issues. However, there is also an opportunity for the development of small, even micro-level, local operators or agents to run and maintain very small community services, providing simultaneously for service continuity and local employment.

The specific actions and recommendations that TelSoc proposes are:

- The Review should engage with NBN Co to determine what plans NBN Co has for the use of new technologies, and particularly LEO satellite-based services, to provide broadband services to enterprises, households and communities in regional, rural and remote Australia.
- In any case, the Review should undertake, or propose that the Government undertakes, a targeted review of LEO developments to ensure that the Government is well placed to take these developments into consideration when framing or revising its policy framework for regional, rural and remote services.
- The Government should ensure that its Statement of Expectations to NBN Co includes adequate directions to encourage engagement with technology and system vendors offering potentially effective means of delivering broadband services nationally, including to enterprises, households and communities in regional, rural and remote Australia.
- The Review should consider and report on the potential for local operators and agencies to be established on a sustainable commercial basis to establish and maintain local telecommunications services and service extensions via WiFi and other means.

3. Inclusion and Affordability

Questions 2, 7 and 16 of the Issues Paper relate to the issues TelSoc wishes to raise.

Issues of inclusion and affordability have persistently arisen in our considerations over the last two years, and underlie many of the issues being examined by the Review. We have addressed these issues in several of our forums. We have also noted their absence in detail, though not in high level statements, in the Digital Economy Strategy and we have made a submission to the Digital Technology Taskforce which includes a recommendation that this be addressed.

Important work has clearly been done to focus attention to this issue, including the development of a composite Australian Digital Inclusion Index, the Australian Digital Inclusion Alliance's proposals for a National Digital Inclusion Roadmap, the Australian Communications Consumer Action Network's advocacy for more affordable fixed broadband prices and the Bureau of Communications and Regional Research's focus on affordability of prepaid mobile broadband.

Nevertheless, at the most basic level for formation of public policy there is no apparent clear understanding of what constitutes inclusion and affordability and the magnitude of the problem. A commonly used measure for inclusion is the use of the Internet in a recent period of time. A frequently quoted figure is the ABS 2016-17 statistic that 13.8%, or 2.58 million, adult Australians did not access

the Internet in the last three months; a dramatically contrasting figure arises, however, from the recently-reported ACMA study of June 2020 which concludes that 1.17% adult Australians were not accessing the Internet in the last six months. This translates to approximately 0.23 million adults. Questions about appropriate definitions, timeliness, and measurement methods clearly arise.

Inclusion involves a range of considerations including issues associated with skills and capabilities, availability of access, affordability and choice. TelSoc is of the view that work needs to be undertaken to determine the extent to which some members of the Australian community are unable to afford the cost of terminal equipment or the monthly service charge so they can effectively participate in the digital economy. Also, TelSoc is concerned that a significant proportion of the Australian community do not have the skills to be able to effectively participate.

Consequently, we have proposed to the Minister for Communications the conduct of a *Review of Inclusion and Affordability of Broadband Services* (as attached), investigating questions such as:

- What is the nature and extent of broadband affordability and the concept of digital inclusion in Australia today?
- What are the factors contributing to broadband affordability and to digital inclusion and how can they be approached?
- What approaches should be taken to resolve issues and challenges associated with broadband affordability and digital inclusion to the extent possible over the next five years?

Issues of inclusion and affordability for people in regional Australia are clearly of major importance to your Review.

The specific actions and recommendations that TelSoc proposes are:

- The Review should, within the limits of its resources, have a major focus upon a detailed examination of the above questions regarding inclusion and affordability.
- Alternatively, the Review should recommend to the Minister the conduct of a broad examination into these questions.

4. Regional pricing

Questions 1, 2, 3, 7, 8, 11 and 16 of the Issues Paper relate to the issues TelSoc wishes to raise.

Pricing of telecommunications services for users in regional locations has always been of major policy importance in Australia, because of the imperative to provide services on an equitable basis nationally. The key aspect of that policy has traditionally been to price on-going service connection on a nationally uniform basis, sustained by a combination of internal cross-subsidies within the dominant provider's organisation and a contribution through universal service levies from other licensed service providers.

In the broadband era, the policy imperatives for uniform pricing in relation to residential (or household) users remain very strong, reflecting the long-accepted balance between social equity on the one hand, and cost of service delivery on the other. Without uniform pricing the prices of service in high-cost regional, rural and remote locations would increase, with consequent exacerbation of affordability challenges and reduced levels of digital inclusion. In recent years, and particularly during the 18 months of COVID-19 experience, Australia has seen a marked increase in the level of population movement from urban to regional locations. In particular, anecdotal evidence suggests that during the period of COVID-19, with greater home working, many Australians realise that with reliable broadband they can undertake work as easily and effectively when located in regional areas as in the cities. This trend is very important in revitalising the economies of regional towns and communities, and reduces potential levels of congestion in the cities. Many factors need to come together to sustain the migration, and one of them is the availability of reliable, affordable telecommunications services. Uniform pricing is one of the supporting pillars in relation to residential services, and the Review is an opportunity to emphasise that.

Telecommunications is part of the critical infrastructure for regional and rural communities and is necessary for many businesses to operate in those communities while serving greater geographic markets. The business plans offered by NBN Co until 2017 tended to reflect comparable pricing between urban and regional areas. From that time however, the introduction of zone pricing has

created significant differentials between zones, and, in particular between regional and urban areas. TelSoc understands that average unit cost differentials between zones are the basic reason for price differentials. However, since prices cover all components of broadband services, both access and capacity (usage), it is not clear that cost differentials are and remain appropriately reflected in price. For example, costs for the provision and maintenance of the access component of a service might well vary in response to many factors, including service location and scale, while other factors, such as usage are not major drivers of cost in any location (urban or rural and regional) and should not be a basis for higher regional pricing.

The national interest requires that all telecommunications service prices be kept as low as can be sustained in all locations, and, further, that the differential for business services should also be kept as low as reasonably possible. There is more scope for competition in the provision of fixed broadband services to the enterprise sector. Mobile services are fully competitive for most of the population, and are offered at uniform prices nationally. Nevertheless, even though these factors provide some constraint on the potential for NBN Co to abuse its currently dominant (quasi-monopoly) position in the fixed broadband market, there needs to be greater accountability for the zonal differentials that are now reflected in business service plans.

The specific actions and recommendations that TelSoc proposes are:

- The Review should note the uniform pricing policy in the case of services to residential customers.
- The Review should engage with NBN Co to establish greater accountability to customers for price differentials that now apply for services to urban and regional locations, and the basis of zonal price differences in general.
- Minimising to the greatest practical extent differential between telecommunications service prices to customers in urban, regional and rural locations should be adopted as a continuing telecommunications policy goal.

TelSoc would welcome the opportunity to address or clarify any of the issues raised in this submission, and to further assist the Review as required.



Dr J R Holmes
President, TelSoc
28 September 2021